

DRAFT

WALK  
NORTHAMPTON  
BIKE



# TECHNICAL MEMORANDUM #1

MARCH 2016



PREPARED FOR THE CITY OF NORTHAMPTON BY  
ALTA PLANNING + DESIGN AND WATSON ACTIVE







## EXISTING CONDITIONS

### 1. Introduction

This technical memorandum includes summaries of pertinent existing studies, reports and policies that will inform the plan's future infrastructure, program and policy recommendations. In addition, this memorandum provides an assessment of current walking and bicycling conditions, including gaps in the walking and bicycling network. Other maps show transit routes in Northampton, as well as traffic volumes on key streets. A combination of GIS-based data, field work, and input from the City's Project Advisory Committee was used to develop the analysis. Ultimately, the map analysis will be used to create recommendations for an integrated network of sidewalks, crosswalks, enhanced intersections, rail trail improvements and on-street bicycle facilities.

### 2. Plans, Reports & Policies

#### INTRODUCTION

The following section contains a synopsis of six reports that rely on common themes of creating a safer and more pleasant streetscape environment for the citizens and visitors of Northampton. The reports include a Wayfinding Pilot Program, Walk/Bike Assessment, Parking Management Study, Feasibility Study for Regional Bike Share, Open Space and Recreation / Multi-Use Trail Plan, and the Sustainable Northampton Comprehensive Plan. In each of the reports, common themes of adding appropriate signage for pedestrians, motorists, and cyclists, reducing motor vehicle congestion downtown, increasing the ability, safety, and comfort of cyclists and pedestrians on sidewalks, roads, and crosswalks, providing safe access to rail trail corridors. The Bike Share Feasibility Study recommends introducing a regional Bike Share system in key locations through-out the city and extending into the Pioneer Valley. The Open Space plan has been adopted by 10 municipal boards and provides a blueprint for the long term development and infrastructural upgrades in the future, including providing sidewalks within a mile of all schools and creating a detailed map

available to the public of the City's existing and planned bicycle network.

## 2.1 ADOPTED PLANS, REPORTS & POLICIES

**Title:** Wayfinding Pilot Program for Enhanced Walking Connections (Ongoing, 2016)

**Prepared For:** City of Northampton

**Plan Overview:** Boston-based Pedestrian advocacy and consulting group WalkBoston is working with City's Office of Planning and Sustainability on a pilot pedestrian wayfinding program designed to encourage utilitarian walking and to show how quickly one can reach a destination on foot. Signs will be placed at specific locations along the Northampton's rail trails to indicate the amount of time (in minutes) it takes to walk or to bike to key destinations in the downtown area, and to other locations along the rail trails (schools, commercial centers, housing, etc.). The signs will be metal and affixed to existing kiosks or posts.

The project is funded by the MA Department of Public Health through 1422 – which is related to the Mass in Motion program. Due to the funding parameters, the signage pilot program is to be completed by March 29, 2016.

**Key Findings and Recommendations:** Ongoing

**Title:** Northampton Walk / Bike Assessment: Main Street, Northampton, MA (January 2016)

**Prepared for:** Massachusetts Department of Transportation Bicycle and Pedestrian Safety Awareness and Enforcement Program

**Plan Overview:** Northampton is one of 18 communities participating in MassDOT multi-disciplined program to improve bicycle and pedestrian safety in Massachusetts. A component of the program is to conduct walk and bike assessments, identify challenges, and make short and long-term recommendations. For this effort, WalkBoston, MassBike and Toole Design Group conducted the assessment of pedestrian and bicycle

infrastructure along Main Street (Route 9) in October 2015. Overall, the team found that pedestrian and bicycle movement along Main Street is compromised by the width of the roadway, multiple undefined travel lanes, poor sight lines adjacent to parked cars, long crosswalks, complex intersections and head-in angled parking (for bicyclists). Of note is that there have been several crashes involving pedestrians and bicyclists along the corridor, including one fatality.

### Key Findings and Recommendations:

#### General Improvements:

- Reroute truck traffic on a different route to bypass Main Street through downtown
- Reconfigure the roadway width and, in places, geometry of travel lanes to provide a safer and more-coherent environment for pedestrians and bicyclists

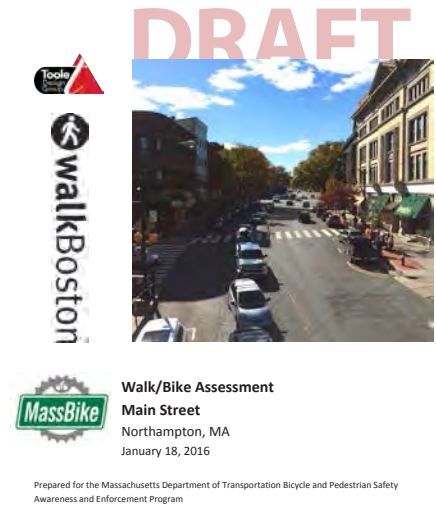
#### Pedestrian Improvements:

- Narrow Main Street to shorten crossing distances by installing curb extensions and refuge islands, install bike lanes
- Remove parking within 20 ft. of crosswalks
- Evaluate signal timing for consistency and accessibility (including count-down timers)
- Enforce ordinances to keep sidewalks clear of intrusions into the pedestrian thru-zone
- Upgrade curb ramps and install detectable warning strips

#### Bicycle Improvements:

- Install bike facilities along Main Street (with both short and longer term options), ideally separated from motor vehicle traffic
- Install bike parking and way-finding signage

More detailed recommendations were provided at the following intersections:



- Elm/West/State/New South intersection
- Cracker Barrel Alley/Crafts Ave intersection
- Old South Street to Gothic Street segment
- King/Pleasant Street intersections
- Main/Crackerbarrel Alley: converting the latter to 'pedestrian only' would have little impact on access to the parking lot but reduce one significant conflict point



**Title:** Parking Management Study, Downtown Northampton, MA (April 2015)

**Prepared for:** City of Northampton.

**Plan Overview:** Although downtown is pedestrian oriented, the combination of newly planned developments and the ongoing presence of motor vehicles and the ability to meet parking demand is important to the success of downtown businesses. The three elements of this plan are: (1) to determine how parking is being utilized now and whether there is capacity to accommodate current needs. (2) To project the impact of future development on the parking system. (3) To review the City's parking management approach and offer recommendations for improvements.

#### Key Findings and Recommendations:

- Slowly increase price of parking on Main Street over time, from \$0.75/hr today to \$1.50/hr over the next few years
- Allow two-hour parking on Main Street, install signage prohibiting "re-parking" or exceeding the maximum
- Delay meter enforcement start times until 9:00am, allow three-hour parking in Armory Lot
- As single-space meters require replacement, consider upgrading to accept credit cards or pay-by-plate
- Retain a signage and graphics consultant to improve wayfinding to better facilitate access to the parking lots by car and on foot

- Explore feasibility of a parking app, a valet service for downtown businesses, and an inexpensive permit in peripheral lots for students of downtown trade schools
- To encourage turnover, step-up enforcement of meter violations

**Title:** Feasibility Study for Regional Bike Share in the Pioneer Valley (March, 2015)

**Prepared For:** Pioneer Valley Planning Commission in collaboration with the Bike Share Feasibility Study Advisory Committee and municipalities of Northampton, Amherst, Holyoke and Springfield.

**Plan Overview:** From the report: "The Pioneer Valley region and its member communities are committed to creating more livable communities and downtowns, as well as reducing single occupancy vehicle trips and the resulting air pollution and GHG emissions. The region is working to increase alternative modes of transportation, including expanding infrastructure for biking, walking, bus and rail service. The region is also seeking to establish commuter rail service along the north-south Amtrak rail line serving Springfield, Holyoke and Northampton, and a bike share program could provide a complementary 'last mile' component to this service." The Feasibility Study has been supplemented by a follow-up report in 2015-16 by Alta Planning + Design. The report includes more-detailed recommendations for a business model, recommended equipment, cost estimates over a 5-year period, a phasing plan for deployment and preliminary site plans for four bike share stations in each of the four municipalities that are part of PVPC's study.

#### Key Findings and Recommendations:

- Systems should serve as an extension of public transit, and station phasing is important
- Casual riders are important; daily, weekly, and monthly users comprise a significant factor of overall ridership. Locate stations near major tourism destinations.



- Operating 3 seasons / year minimizes snow-removal issues.
- Implement a pricing structure that allows for multi-hour rentals. This allows built-in flexibility for recreational trips where a user would want to rent a bike for more than one hour without paying additional fees.
- Smart-lock or non-kiosk based systems greatly reduce the upfront and maintenance costs of system operation. Continue to monitor the success of the Phoenix, AZ bike share program to evaluate whether a public non-kiosk system would be practical for the Pioneer Valley.
- Provide discounted student memberships. Targeting the large student population for use of the bike share system will help increase its overall use, and many students who do not reside in Northampton during the summer months will have trouble justifying the membership fee for a 3-season system.
- Explore alternatives to credit card requirements. Credit-card requirements are common in order to prevent theft or vandalism to the bicycles, but present a major barrier to participation among low-income residents or those who do not have a credit card.
- Partner with other organizations to expand service to low-income individuals and locate stations in areas that have affordable housing and disproportionately low rates of bicycling. Financial assistance should be offered to low-income individuals seeking a membership.
- Explore feasibility of integrating fare payment with PVRTA payment system to increase convenience of using both systems.

**Title:** Open Space, Recreation & Multi-Use Trail Plan (2011)

**Prepared For:** City of Northampton.

**Plan Overview:** From the report: "The plan provides guidance on how the City of Northampton can best use limited resources to

meet the City's open space, agriculture, conservation, multi-use trail, and recreation needs." The City engaged public participation and has received the endorsement of 10 municipal boards to adopt this plan in an effort to meet the needs of citizens and become one of the most sustainable cities in Massachusetts.

**Key Findings and Recommendations** (within 13 broad categories of open space, recreation, and multi-use trail actions):

- Maintain well-managed conservation areas to preserve natural systems and make areas available for visitors, including those with disabilities
- Remove exotic invasive plants / Restore natural systems
- Identify places for fishing, hunting, snowmobiling, off-road vehicles, horseback riding, and mountain biking
- Acquire conservation areas to enhance neighborhoods and urban areas
- Preserve farmland and enhance farmer viability
- Acquire land for recreation and improve existing recreation areas
- Develop a Connecticut River Boathouse
- Connect the MassCentral / Norwottuck Rail Trail gap between Woodmont Road and King Street (funded)
- Extend the Connecticut River Greenway Trail 1.3 miles to Hatfield
- Utilize Village Hill development to extend a trail around the north edge of the campus
- A staircase ramp from the MassCentral / Norwottuck Rail Trail to Look Restaurant
- A ramp from the MassCentral / Norwottuck Rail Trail to the VA Hospital signal (develop a VA Park & Ride lot)
- A connection from the VA to the MassCentral / Norwottuck Rail Trail on the east side of Route 9 (complete)
- A spur from JFK Middle School to Morningside Drive



## Regional Bike Share in the Pioneer Valley



"Develop more multi-use trails, bike paths, bike lanes, bike routes and bike linkages to provide access to active and passive recreation and to create a healthy lifestyle and provide an alternative to single-occupancy vehicles."

- From part 7, Analysis of Needs: Resource Protection, Community, and Management Needs, # 16

- An access ramp in Haydenville to provide a northerly terminus of the MassCentral / Norwottuck Rail Trail
- Develop a park at the triangle formed between Wright Avenue, Hockanum Road, and Pleasant St.
- Develop a very small park in front of City Hall by reclaiming some land from Main Street and Crafts Avenue (which are unsafe for pedestrians as they are too wide)
- Handicap Accessibility along the Nagel Walkway downtown
- The development of a handicap accessible ramp near the Jackson Street School to connect with existing rail trail (complete)
- Primary Objective / Action: "Plan for expansion of current recreation areas. Acquire western portion of City's surplus Oak Street property, to create buffer along bike path and serve other future recreation needs. Acquire undeveloped land abutting Sheldon Field to allow for additional recreation opportunities."
- Future projects should take environmental and cultural uniqueness into account, providing locations for specific activity within open spaces. For example, Northampton has a significant Hispanic population, so park designs should allocate space for traditional Mexican, South American, and Puerto Rican recreation.

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**Title:** Sustainable Northampton Comprehensive Plan (January, 2008)

**Prepared For:** City of Northampton

**Plan Overview:** A comprehensive planning effort intended to "ensure the city can continue to meet its current and ongoing environmental, social and economic needs without compromising the future for succeeding generations." It is also intended to provide a blueprint for long-term infrastructure and development projects within the city. Ultimately, this Walk/

Bike Northampton report will become a new chapter within the Sustainable Northampton Comprehensive Plan.

#### Key Findings and Recommendations:

- Ensure the safe and efficient transportation of goods and people by motor vehicles, bicycle, foot, and any other means
- Maintain an efficient transportation system that reduces air pollution and minimizes congestion
- Reduce use of single occupancy vehicles
- Ensure that safety is a primary goal in transportation improvements, to reduce crashes and ensure that all modes of traffic are safe and attractive to all users on all roads
- Ensure that the needs of transit services, bicycle, pedestrian, and wheelchairs are considered in every project affecting the transportation system
- When designing for truck movements, utilize mountable curbs, pedestrian islands, raised pedestrian crossings, and alternate truck routes where feasible
- Ensure that all new traffic signals incorporate audible pedestrian signals, and create a prioritized list of existing traffic signals where pedestrian signals are desired
- Examine all unsafe intersections, areas of excessive speeds, and areas where neighborhoods perceive a loss of quality of life to consider traffic calming efforts, ensure that the design of all new and reconstructed streets considers incorporating appropriate traffic calming measures
- Provide sidewalks on all roads within one mile of all schools
- Improve circulation system to accommodate development and encourage bicycle and pedestrian transit



SUSTAINABLE  
NORTHAMPTON  
Comprehensive Plan, January 2008



- Ensure pedestrian, bicycle, non-motorized travel, and transit are addressed in every development project
- Replace all catch basin covers that are not bicycle-friendly
- Develop a citywide bicycle system including existing and planned off-road bicycle paths, on road-bike lanes, and safe on-road bike routes. On-road bike routes and lanes that provide direct access to the growing rail-trail network and to urban core areas should receive a high priority. The system should include supporting services, such as signage, bicycle storage, and bicycle system maps and information.
- Provide appropriate bicycle and vehicle parking to support local businesses

## 2.2 POLICY REVIEW

### 2.2.1 - Policy/Program: Zoning Ordinances (includes site plan review)

**Prepared by:** City of Northampton

**Policy/Program Overview:** Chapter 350 of the Code of Ordinances of the City of Northampton governs zoning in the City. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

#### Key Provisions:

Defines short- and long-term bicycle parking (§350-2.1 General).

Defines “cycle track”, a physically separated bicycle facility (§350-2.1 General).

Important note: Definition of “motor vehicle” could potentially apply to and limit use of electric-assist bicycles (“e-bikes”) (§350-2.1 General).

Prohibits obstruction of sightlines at intersections and driveways (§350-6.8 Other general dimensional and density provisions).

Sets minimum vehicle parking space requirements for different types of structures and uses, based primarily on square footage, with residential caps but no caps for businesses or institutions (§350-8.1 Off-Street parking requirements).

- Businesses can reduce parking up to 20% with an employee trip-reduction plan (§350-8.6 Shared parking)
- In the Central Business District, can meet parking requirement by paying \$2,000 per parking space into Downtown Parking Reserve Account (§350-8.10 Special provisions in Central Business District for meeting off-street parking requirements).

Bicycle parking required for “any new building, addition or enlargement of existing building, or, except for in the Central

Business District, for any change in the use of a building” (§350-8.11 Bicycle parking).

- Based on number of units for dwellings, square footage for businesses, number of classrooms for schools.
- 50% long-term bicycle parking required for residential, hotel, motel, B&B
- Refers to Northampton Bicycle Parking Guide for graphics and examples.
- Important note: There are inconsistencies in the requirements and specifications between the bike parking ordinance and the bike parking guide. (Bike parking guide is not regulatory.)
- Questions: Look at alternative formulations for bike parking requirements, and provision of end-of-trip facilities (showers and lockers).

Specifies site plan requirements (§350-11.5 Procedures)

- Requires estimated vehicle (but not bicycle or pedestrian) trip data.
- Traffic patterns for vehicle and pedestrian access.
- Traffic safety plan, which, for new commercial, office, and industrial buildings, must “evaluate alternative mitigation methods to reduce traffic by 35%”, including “Encouraging pedestrian and bicycle access to the site”.
- Assessment of traffic safety impacts on adjacent roadways.
- “An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.”

Sets up site plan approval criteria (§350-11.6 Approval criteria)

- Important quote: “The requested use will promote the convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, cycle tracks and bike paths, minimize traffic impacts on the streets and roads in the area.”

“Safe and adequate pedestrian access, including provisions for sidewalks and/or bike paths to provide access to adjacent properties and adjacent residential neighborhoods, as applicable, and between individual businesses within a development.”

- From §350-11.5 Procedures



- Important quote: “The project, including any concurrent road improvements, will not decrease the level of service (LOS) of all area City and state roads or intersections affected by the project below the existing conditions when the project is proposed and shall consider the incremental nature of development and cumulative impacts on the LOS. The project proponent must demonstrate that all cumulative and incremental traffic impacts have been mitigated.”
- Mitigation can include payments to fund improvements for off-site traffic impacts, public transit, and pedestrian or bicycle paths.
- Specific mitigation payments are set based on type of location and estimated peak trips.
- Important quote: “Rear and/or side wall facades within 50 feet of a completed or planned section of a cycle track or bike path shall have features that invite pedestrian access from that side of the building”.
- Important quote: “Pedestrian, bicycle and vehicular traffic movement on site must be separated, to the extent possible, and sidewalks must be provided between businesses within a development and from public sidewalks, cycle tracks and bike paths. All projects shall include sidewalks and tree belts abutting the street, except where site topography or other limitations make them infeasible. In such cases where the sidewalk is infeasible, the developer shall install an equal number of feet of sidewalk and/or tree belt in another area of the community as deemed by the Planning Board or Office of Planning and Sustainability.”
- Establishes technical specifications for sidewalk design:
  - » Concrete.
  - » Minimum six feet in commercial and industrial districts.
  - » Minimum five feet in residential district.

- » Specs for ramps, cross-slope, etc.
- » Allows, but does not require, curb extensions.
- » Curb extensions must not impeded bicycle traffic.

Provisions for vehicles and pedestrians must be at or near grade if at or below the 100-year floodplain in the SC or Floodplain District (§350-13.6 and §350-14.6 Development conditions).

Special permit approval for business park requires both open space and pedestrian access to the open space (§350-16.3 Criteria for special permit approval).

Establishes Sustainable Growth Overlay District to encourage smart growth developments, including “a variety of transportation options” (§350-20 Sustainable Growth Overlay District (SG))

- Parking requirements are the same as for other development (§350-20.9 Parking requirements).
- Plan approval criteria with respect to transportation (including bicycle and pedestrian) are similar to regular site plan criteria.

#### Highway Business District:

Bike parking: “1 bike rack per 10 parking spaces up to 15 required (indoor or outdoor). Storage must allow locking of bicycles to racks or inside storage containers.” (Chapter 350 Attachment 12)

Sidewalks: (Highway Business District Design Standards attachment)

- “At least one 6’ wide principal sidewalk leading either from the street or public bike path to the principal structure on site”
- “Continuous internal pedestrian walkways, no less than six feet (6’) in width, shall be provided from the principal sidewalk to the main customer entrance of all other buildings on the site.”

“Access by non-motorized means must be accommodated with facilities such as bike racks, sidewalk connections from the building to the street, cycle tracks, and bike paths that are clearly delineated through materials and/or markings to distinguish the vehicular route from the non-vehicular route.”

- From §350-11.6

- “Walkways shall connect focal points of pedestrian activity, such as but not limited to transit stops, street crossings, building and store entry points.”
- “Sidewalks, no less than eight feet in width, shall be provided along the full length of the building along any facade featuring a customer entrance, and along any facade abutting public parking areas.”

Entranceway Business District:

Bike parking: “1 bike rack per 10 parking spaces up to 15 required (indoor or outdoor). Storage must allow locking of bicycles to racks or inside storage containers.” (Chapter 350 Attachment 10)

### 2.2.2 - Policy/Program: Sub-Division Regulations

**Prepared by:** City of Northampton

**Policy/Program Overview:** Chapter 290 of the Code of Ordinances of the City of Northampton governs subdivision of land in the City. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

#### Key Provisions:

In addition to governing the subdivision of land, these are the technical specifications that apply for site plan approvals.

Purpose does not expressly include pedestrian or bicyclist access or safety (§290-2 Purpose): It reads, in part (emphasis added), “The powers of the Planning Board and the Board of Appeals under these rules and regulations shall be exercised with due regard for the provision of adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion on such ways and in the adjacent public ways; **for reducing danger to life and limb in the operation of motor vehicles....**”

Definitions include subdivision street types (§290-4 Terms defined):

- Private Alley: private, narrow, one-way vehicular and pedestrian route with green infrastructure for stormwater runoff, no curbing or sidewalks.
- Residential Shared Street: private, narrow, low-speed, two-way street where vehicles and pedestrians share the same space, no sidewalks or curbing, green infrastructure, parking pockets and street furniture for traffic calming, not appropriate for main through streets.
- Residential Yield Street: low-speed, two-way street with sidewalks, alternating parking pockets to slow speeds and require oncoming traffic to yield, intersections have crosswalks with curb extensions.
- Mixed Use/Commercial Street: low-speed, two-way street with sidewalks, on-street parking to slow traffic, curb extensions shorten crossing distance and reduce vehicle turning speed.

Traffic study submittal requirements include pedestrian and bicycle modes (§290-23 Additional subdivision submittal requirements):

- Estimated daily and peak-hour trips for vehicles and pedestrians; does not specifically include bicycles.
- Traffic safety plan, including alternatives to single-occupancy motor vehicles, and evaluation of methods to reduce traffic by 35%, including “Encouraging pedestrian and bicycle access to the site”.
- Network analysis showing how project enhances flow of existing network.
- Pedestrian components: interior circulation plan to minimize conflicts and safety problems, and adequate pedestrian access including sidewalks connecting to adjacent properties and businesses within the development.
- School bus and public transit stops, as appropriate.



- A focus is on maintaining LOS: Demonstrate that project will not decrease LOS below existing conditions at time of proposal and considering future development and impacts.
- Proponent must mitigate off-site traffic impacts, or may request to pay to fund necessary off-site improvements, including public transit and pedestrian or bicycle paths.

Adopts Massachusetts Department of Transportation (MassDOT) Standard Specifications for Highways and Bridges and its supplements (§290-28 Controlling standards).

Design specifications for the four street types, as relevant to pedestrian and bicycle use (§290-29 Streets and ways):

- Right-of-way
  - » Private Alley: NA
  - » Residential Shared Street: NA
  - » Residential Yield Street: 60'
  - » Mixed Use/Commercial Street: 70'
- Pavement width
  - » Private Alley: 14'
  - » Residential Shared Street: 20'
  - » Residential Yield Street: 20' within 30' of intersection; 24' elsewhere
  - » Mixed Use/Commercial Street: 22' within 30' of intersection; otherwise 30' when street serves <25% commercial by sq. ft.; 38' all other
- Limit of dead-end streets, measured along the center line, from the nearest public (non-alley) street that is not itself a dead-end street: 500'
- Length of block between 3+ way intersections
- Length of block if broken up at least every 500' by a walking or bicycling trail and connects permanently to protected open space

- Pavement Type: Hot mix asphalt, with textural changes for Private Alley or Residential Shared Street.
- Vehicle flow: Two-way, except Private Alley may be one-way.
- Sidewalk (cement concrete only, including where it crosses driveway)
  - » Private Alley: none
  - » Residential Shared Street: none
  - » Residential Yield Street: 5' wide, both sides, except that LID street with no curbs on one side may eliminate sidewalks on the curbless side with additional crosswalks at least every 200 feet.
  - » Mixed Use/Commercial Street: 6' wide both sides
- Crosswalks (to be located at all street and trail intersections and no other locations): Raised to elevation of sidewalk (or pedestrian path for Alley or Residential Shared Street).
- Shoulders
  - » Private Alley: not allowed
  - » Residential Shared Street: not allowed
  - » Residential Yield Street: bike facilities as necessary for arterials
  - » Mixed Use/Commercial Street: bike facilities as necessary depending on functional type
- Curbs: 30' from each intersection and on sides whenever there are no rain gardens, bioretention areas, or curb cuts.
- Stopping sight distance (considering vertical alignment, slopes, and obstructions)
  - » Private Alley: 80'
  - » Residential Shared Street: 80'
  - » Residential Yield Street: 115'

- » Mixed Use/Commercial Street: 155'
- Design speed:
  - » Private Alley: 15mph
  - » Residential Shared Street: 15mph
  - » Residential Yield Street: 20mph
  - » Mixed Use/Commercial Street: 25mph
- Streetlighting (must be LED): Intersections and crosswalks.

#### Location (§290-29.A):

- **“All streets and ways shall be designed so that, in the opinion of the Planning Board, they will provide safe vehicular travel”.**
- “The proposed streets shall be consistent with the goals of Sustainable Northampton”.
- Requires provision “for the proper projection of streets, or for access to adjoining property that is not yet subdivided or developed”.
- Dead-end/cul-de-sac: “A right-of-way from the end of all culs-de-sac and dead-end roads to adjoining property must be part of the street layout and must be shown on street acceptance plans and deeds unless there is compelling evidence that the adjoining property will never be developed.”
- Requires bicycle and pedestrian access to adjoining undeveloped property: “If the adjoining property shall never be developed, there shall be a pedestrian and bicycle trail up to the property line, unless wetlands and grade make that impossible.”

#### Cul-de-sac or dead-end streets (§290-29.B):

- “It is the Board’s policy not to approve streets that do not connect to existing neighborhoods or do not provide for connections in the future. The applicant must show a scenario of how a street connection can

be made. Further, the developer shall make every effort to avoid the creation of dead-end streets and must connect its subdivision to existing dead-end streets whenever reasonably possible. Dead-end streets are more expensive to maintain, limit emergency access, and reduce the sense of connection and equality that comes from interconnecting street grids.”

- Bicycle and pedestrian connectivity required when dead-end allowed (emphasis added): “Dead-end streets are only appropriate when the surrounding property will never need a street connection, because of extremely sensitive and permanently protected natural resources, and the project provides a viable alternative pedestrian and bicycle connection to the surrounding property, and the street connection will not aid the transportation network that serves the subdivision, and the dead-end street will not serve more than 20 housing units.”
- Less than 500 feet from a connected street: “Every street in the proposed subdivision shall be laid out in such a manner that every portion of every street is less than 500 feet, as measured along the center line of construction of the street from the nearest connected existing public street which is not itself a dead-end street. Cul-de-sac or dead-end streets shall be allowed only on residential streets.”

Street cross sections (§290-29.C): representative cross sections are shown for the four street types.

#### Traffic calming and pedestrian and bicycle access (§290-29.E):

- Traffic calming may utilize methods detailed in ITE’s Traditional Neighborhood Development or Traffic Calming: State of the Practice, and “complete streets” principles from the National Complete Streets Coalition, but must utilize methods that will not make snow plowing or road maintenance especially burdensome for the City.”

“...the design shall make every effort to reasonably calm the traffic within the subdivision and on surrounding streets to ensure pedestrian- and bicycle-friendly design and to prevent a decrease in traffic safety as a result of the additional traffic the project will generate. Bicycle and pedestrian pathways are encouraged within large developments and should be linked to adjacent properties, pathways, sidewalks, and transit stops wherever feasible..”

- From §209-29

- Unclear what “especially burdensome” means with respect to snow clearance and maintenance of physically separated bicycle facilities.

## Shared streets (§290-29.F):

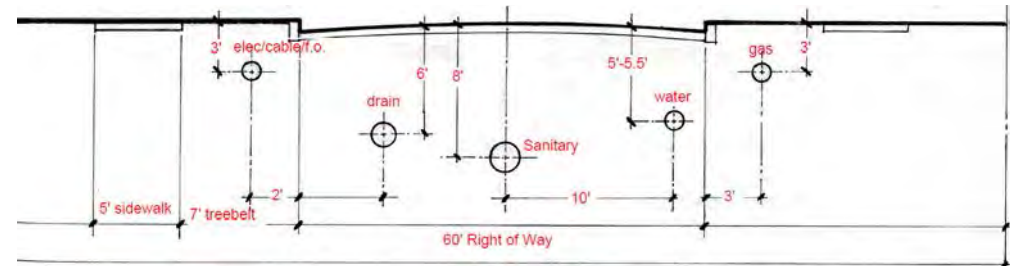
- Traffic calming to reduce vehicle speeds to 15mph.
- Use chicanes to reduce speeds.
- Narrow to one travel lane at entryways, using excess space for at-grade sidewalks.

## Sidewalk standard (§290-35 Sidewalk standards and school bus stops):

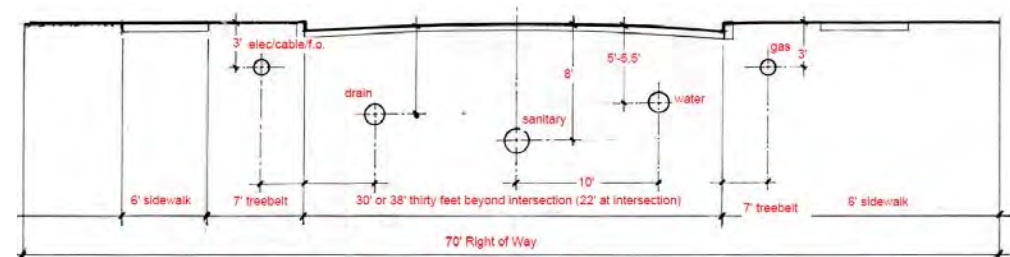
- HOA covenants must require that HOA clear snow from all sidewalks.
- With approval, sidewalks may be built in common areas rather than right-of-way, but HOA must still do snow clearance.
- Shared streets should have paved pedestrian area on both sides, from 3-12 feet, but a pedestrian area on only one side is permissible with approval.
- Paving as indicated in §290-29, with textured pervious paving and flush granite curbing on shared streets. Bollards may be required to separate pedestrian areas and travel lanes, or around bioretention areas or sharp curves.

Bicycle and pedestrian access (§290-37 Adequate access from public way): Subdivision street system required to have adequate vehicular, pedestrian, and bicycle access to a City, county, or state public or private way.

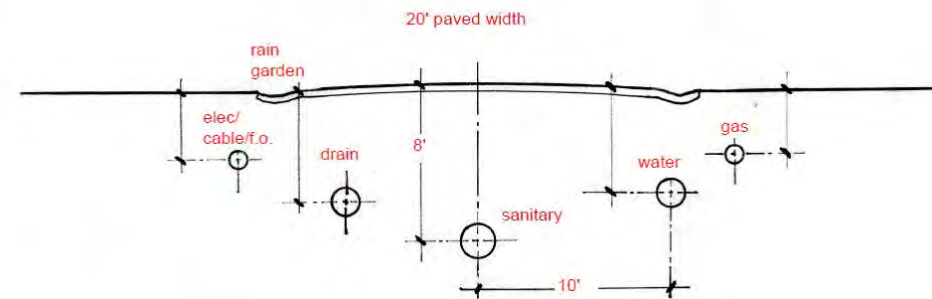
## Residential Yield Street



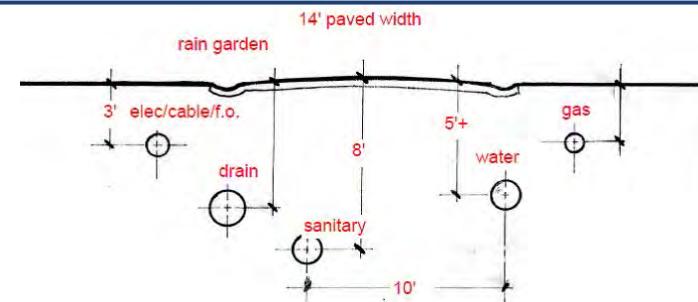
## Mixed Use Street



## Shared Street



## Green Alley





**2.2.3 - Policy/Program: Various Walk / Bike Related Policies**

**Policy/Program Overview:** Chapter 312 of the Code of Ordinances of the City of Northampton governs vehicles and traffic in the City. Section 312-78 establishes rules specifically for “the bikeway”. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

- Unclear from context which “bikeway” is referred to, as there are currently multiple bikeways serving Northampton.
- No motorized vehicles allowed; could limit use of e-bikes.
- Bikeway is closed from dusk to dawn; inconsistent with using the bikeway as a transportation corridor.
- Bikeway users required to:
  - » Stop at all street crossings.
  - » Yield to vehicles in the road.
  - » Keep to the right.

**2.2.4 - Policy/Program: Bike Lane Ordinance**

**Policy/Program Overview:** Chapter 312 of the Code of Ordinances of the City of Northampton governs vehicles and traffic in the City. Section 312-80 defines and regulates use of bike lanes in the City. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

- Bike lanes are for preferential, but not exclusive, non-motorized bicycle use.
- Bike lanes to be designated by “painted lines, pavement coloring or other appropriate markings.”
- Vehicle parking in bike lanes is prohibited, subject to a \$25 fine.
- Motor vehicles must use “due caution and care” before entering or crossing a bike lane.

- City Council designates bike lanes based on recommendation of Transportation and Parking Commission, with concurrence of Department of Public Works (all three bodies must agree).
- The bike lanes specifically designated in the ordinance can be found in the Appendix.

**2.2.5 - Policy/Program: “No Skitching” Ordinance**

**Policy/Program Overview:** Chapter 312 of the Code of Ordinances of the City of Northampton governs vehicles and traffic in the City. Section 312-61 prohibits clinging to motor vehicles. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

“It shall be unlawful for any person traveling upon a bicycle, motorcycle, coaster, sled, roller skates, or any toy vehicle to cling to, or attach himself or his vehicle to any moving vehicle or street car upon any roadway.”

**Policy/Program:** Bicycling Prohibited at Schools and Recreational Facilities

**Policy/Program Overview:** Chapter 233 of the Code of Ordinances of the City of Northampton governs parks and recreation in the City. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

- “No person shall operate a motor vehicle, including, but not limited to a skimobile, minibike, trailbike, automobile, or other powered vehicle, or a bicycle, on any school grounds or in any park, playground, or recreation field operated by the Recreation Department, except on driveways and in parking lots.” (§233-1 Operation of Vehicles, emphasis added)

### 2.2.6 - Policy/Program: Enforcement of Ordinances

**Policy/Program Overview:** Chapter 40 of the Code of Ordinances of the City of Northampton governs enforcement of City ordinances by criminal complaint, civil action, and noncriminal disposition (fine). Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

- Covers all violations of city ordinances, including zoning.
- Fines are not specified for every ordinance:
  - » Where a fine is not specified for a criminal complaint, the default fine is up to \$300 (\$1-17 General penalty).
  - » Where a fine is not specified for a noncriminal disposition, the default fine is \$20 for the first offense and \$50 for subsequent offenses.
  - » Each day a violation continues is considered a separate offense.
- Fine for zoning violation (Chapter 350) is \$100.
- Fine for snow/ice removal violation (§285-17) is \$50.
- Fine for obstructing a street or sidewalk (§285-29) is \$50.

**Important Note:** It is unclear to what the following section references at the end of the table in §40-5 refer: “VIII-B, 1”; “IX-E”; “III, V, VI, or IX”.

### 2.2.7 - Policy/Program: Complete Streets Policy

**Policy/Program Overview:** Section 285-51 of the Code of Ordinances of the City of Northampton contains the City’s new Complete Streets Policy, passed by the City Council on December 3, 2015, and approved by the Mayor on December 7, 2015. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

- The City’s Complete Streets Policy ensures that pedestrian, bicycle and transit facilities are fully integrated into a safe and efficient transportation system.
- If the Complete Streets Policy is approved by MassDOT, the City can submit a Complete Streets Prioritization Plan and request funding for up to five Complete Streets projects for a maximum total of \$400,000. Program details can be found at: <http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/LocalAidPrograms/CompleteStreets/FundingProgram.aspx>.
- Details of the Complete Streets Policy’s text can be found in the Appendix.

### 2.2.8 - Policy/Program: Street and Sidewalk Ordinances

**Policy/Program Overview:** Chapter 285 of the Code of Ordinances of the City of Northampton governs various aspects of construction, maintenance, and use of streets, sidewalks, and public property in the City. Analysis based on code version linked from City website at <http://ecode360.com/NO2226>.

**Key Provisions:**

- Sidewalk snow clearance (§285-17 Removal of snow and ice from sidewalks):
  - » Owner of any building, structure, or lot with a sidewalk must clear snow within 24 hours after snowfall ceased.
  - » Owner must remove or cover with sand or other suitable substance any ice within 24 hours of its appearance.
  - » Full width of sidewalk must be cleared.
  - » Sidewalk must be rendered safe and convenient for travel.
  - » Special timing for Central Business District: within 24 hours or 9:00am the next business day, whichever is sooner.
  - » Violation to move ice or snow onto paved street or gravel shoulder.

- » \$50 fine for violation, new fine each 24-hour period of violation.
- » DPW may clear violator's sidewalk, at owner's expense.
- Preventing tire damage (§285-8 Placing items liable to damage tires on streets prohibited): illegal to place anything on a street that can damage the tires or wheels of bicycles, automobiles, or other vehicles with rubber or pneumatic tires.
- Prohibited activities (§285-12 Certain activities on streets and sidewalks prohibited):
  - » No sidewalk surfboards, skateboards, roller skates, or in-line skates on certain public area, public ways, and sidewalks (§285-12.A)
  - » Use of bicycles (§285-12.B Provisions for bicycles):
    - Bicycles allowed on all streets.
    - Bicycles allowed on all sidewalks except specific sidewalks in the Downtown Business District and the Florence Business District:
    - Bicycles not allowed to be "driven" in Pulaski Park.
    - Important Note: Bicycling further prohibited from "any school grounds or in any park, playground, or recreation field operated by the Recreation Department, except on driveways and in parking lots" by §233-1 Operation of Vehicles (in Chapter 233: Parks and Recreation).
- Sidewalk sweeping (§285-18 Sweeping of sidewalks abutting business premises): owners of business premises must sweep sidewalk "at the opening of each business day", and must pick up the sweepings, not sweep them into the street.
- Gratings (§285-24 Gratings in streets): specifies certain dimensions of grates – no more than 2 inches between bars, and no more than 18 inches from a building; does not meet requirements for bicycle-safe grate, and does not otherwise limit size or shape of grate.
- Obstructing sidewalks (§285-29 Obstructions to sidewalks): No obstructions allowed to sidewalks, or the pavement edge or shoulder where there is no sidewalk, including protruding vegetation. Owner must remove obstruction within 14 days of notice, or City will remove at owner's expense.



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## 2.3 WALK BIKE PROGRAMS REVIEW

As a community that has strived to achieve its status as a very walkable and bikable city, Northampton has initiated a number of Active Transportation Programs. The mix of Education, Encouragement, Enforcement and Evaluation programs give residents important tools to better integrate walking and bicycling into their lives, and increase the number of both modes. This is especially critical with children as Safe Routes to School efforts will instill lessons and habits that can be used for a lifetime. The sections below give a summary of the various programs, which in aggregate have helped the City achieve designation as a walk-friendly and bicycle-friendly community.

### 2.3.1 - Program: Safe Routes to School (Education and Encouragement)

**Source:** Erin Reed, Statewide Coordinator, Massachusetts Safe Routes to School Program

**Program Overview:** Safe Routes to School (SRTS) is a federally-funded, MassDOT-managed program that “promotes healthy alternatives for children and parents in their travel to and from school.” SRTS has education, encouragement, and infrastructure components.

#### Key Activities:

- All four Northampton elementary schools and the middle school are SRTS partner schools.
- According to SRTS: “Northampton Schools have various walking clubs/activities within their gyms and/or on school grounds. During 2014 and 2015, SRTS met with the head nurse of K-12, twice with the transportation director, and once with the Superintendent. A handful of meetings were held with Northampton’s Mass in Motion organizer about plans to increase walking and walking/bicycling safety. There was a big concern expressed regarding walking school bus creation and walking promotion in general: the number of local child offenders/predators in the community.”

- Northampton schools have not participated in SRTS bicycle or pedestrian safety trainings.
- The Jackson Street Elementary School received a SRTS infrastructure project completed in 2010. Leading up to the project, the school conducted student travel tallies and parent surveys annually.
- Northampton Public Schools added travel safety information to the school district website (<http://www.northampton-k12.us/traveling-to-school-safely>):

Northampton Public Schools has employed crossing guards at the following intersections:

- Jackson Street & Barrett Street
- Florence Street and Leeds
- Prospect Street & Massasoit Street
- Florence Street & Arch Street
- Bridge Street & Hawley Street
- Parson Street & Union Street
- Bridge Street near Pomeroy Terrace
- Brookside Circle & Deerfield Drive
- JFK Middle School
- Mulberry Street & Main Street
- Ryan Road & Matthew Drive

### 2.3.2 - Program: Encouragement

**Sources:** Wayne Feiden, Northampton Director of Planning and Sustainability; Sean Condon, President, MassBike Pioneer Valley Chapter; Craig Della Penna, Co-President, Friends of Northampton Trails and Greenways; MB/PV website (<http://massbikepv.org/>); Bay State Bike Week website (<http://baystatebikeweek.org/>); Friends of Northampton Trails and Greenways website (<http://fntg.net/>); Northampton Cycling Club website (<http://www.nohobikeclub.org/nccwp/>)

**Program Overview:** Activities to encourage bicycling and walking in Northampton are ongoing and multi-faceted, relying on various nonprofit organizations, with very limited government funding.

**Key Activities:**

- Trail and bike maps: Produced by the Friends of Northampton Trails and Greenways, available for download on the FNTG website, hardcopy at local businesses.
- Wayfinding/Signage:
  - » City installed approximately 12 bike paths kiosks 12-13 with signage, funded by a Recreational Trails Grant obtained by MassBike and the City.
  - » City installed a large graphic art sign on the bike path bridge over Main Street (helps define downtown and draw people to path).
  - » City is working with WalkBoston to install wayfinding signs with distances to key destinations, 100 total, 20-30 on bike path.
  - » City plans to install mileage markers on bike paths, starting with salvaged granite marker at Union Station, with flush granite markers on bike paths.
- Trail information is available on City website at: <http://www.northamptonma.gov/1346/BikeWalk-Trails>.
- Bay State Bike Week: annual statewide celebration of bicycling, coordinated by MassDOT, MassBike, and MassRIDES. The Pioneer Valley is host to many Bike Week events each year. Bay State Bike Week traces its roots to Pioneer Valley Bike Commute Week, which started in 1999 and is now in its 17th year, coordinated by the Pioneer Valley Planning Commission and the MassBike Pioneer Valley Chapter.
- Northampton Cycling Club (NCC) BikeFest: annual bike tour and festival.

- MassBike/Pioneer Valley chapter is interested in holding Open Streets events in Northampton, but has not identified funding.
- National recognition for Northampton's programs (and infrastructure): recognized as a Bronze-Level "Bicycle Friendly Community" by the League of American Bicyclists and a Bronze-Level "Walk Friendly Community" by the Pedestrian and Bicycle Information Center.

#### 2.3.4 - Program: Education

**Sources:** Anne-Marie Moggio, Director, Northampton Parks & Recreation Department; Sean Condon, President, MassBike Pioneer Valley Chapter; Ruthy Woodring, Co-founder, Pedal People Cooperative; MB/PV website (<http://massbikepv.org/>); Bay State Bike Week website (<http://baystatebikeweek.org/>)

**Program Overview:** A variety of local programs provide education on bicycling and walking safety, and related topics, led by the City, nonprofits, Smith College, and other organizations.

**Key Activities:**

- Safety Village: The Parks & Recreation Department runs a summer program for 4-6 year olds that teaches various safety topics, including bicycle, pedestrian, and traffic safety, in a replica of Northampton with storefronts, streets, sidewalks, and signs. The program consists of three, two-week sessions per year, reaching up to 120 children. It has been in operation for approximately 25 years. Representatives from the police, fire department, hospitals, and other agencies participate. The children ride bicycles with training wheels and walk the sidewalks to learn traffic safety. See details at <http://www.northamptonma.gov/905/Safety-Village>.
- Teen Camp: The Parks & Recreation Department also offers occasional bike safety training, bike rides, and bike maintenance training at its teen camps, but less regularly than the Safety Village program.



*Kids participate in the Safety Village summer program*





- City distributes “Watch for Bikes” stickers for car mirrors, but not in an organized program.
- Road Cycling 101: bicycling skills class offered jointly by MassBike Pioneer Valley Chapter and Northampton Cycling Club, 14 participants in 2015
- Smith Bike Kitchen: Smith College has an on-campus bicycle repair, education, and rental organization.
- Pedal People education programs: Pedal People is a cooperative whose primary activity is delivery and cargo hauling by bicycle, and they provide training to their employees covering bike safety and maintenance, and operation of cargo trailers. Pedal People also provides educational programs to the public. The Saturday Bike Lab consists of regular workshops and classes in bicycling skills and bicycle maintenance. Since December 2014, Pedal People has partnered with Berkshire Driving School in Easthampton to offer a monthly, one-hour training to student drivers (mostly teenagers) including sharing the roads as drivers and cyclists, safe interactions between drivers and cyclists, common cyclist concerns, and cyclist behavior.
- As noted in the Safe Routes to School section, Northampton schools have not participated in bicycle and pedestrian safety trainings offered by SRTS.

### 2.3.5 - Program: Enforcement

**Sources:** Bonnie Polin, Chief Safety Analyst, Traffic and Safety Engineering Section, MassDOT Highway Division; Gary Roux, Principal Planner/Traffic Manager, Transportation, Pioneer Valley Planning Commission; Wayne Feiden, Northampton Director of Planning and Sustainability

**Program Overview:** A collection of target enforcement activities intended to enhance pedestrian and bicycle planning.

### Key Activities:

- Northampton is currently participating in the MassDOT bicycle and pedestrian safety program, which includes an enforcement component funded through the Pioneer Valley Planning Commission. MassDOT reports that some enforcement activity took place in the Summer and Fall of 2015, but little data has been reported.
- Reports include:
  - » Pedestrians crossing against the light, stating that it was safe because no cars were coming.
  - » Pedestrians crossing against the light, stating that they were visiting and did not know the rules.
  - » Bicyclists riding on the wrong side of the road, stating that they knew it was wrong.
  - » Bicyclists running red lights, stating that they knew it was wrong.
- Police have, on occasion, performed grant-based outreach such as helmet giveaways

### 2.3.6 - Program: Evaluation

**Sources:** Friends of Northampton Trails and Greenways, Pioneer Valley Planning Commission (PVPC), Central Transportation Planning Staff (CTPS)

**Program Overview:** Involved a series of trail counts between 2005 and 2011 on the three rail trails within the City of Northampton. A summary of the data collected can be found on the following page.

WHO:	Friends of the Northampton Trails & Greenways	Pioneer Valley Planning Commission		Central Transportation Planning Staff - Boston Region MPO			
WHEN:	2010	2005	2008	September 8, 2007	September 8th, 2007	2007	May 10, 2011, May 7, 2011, September 14, 2010, September 11, 2010, July 13, 2010, July 10, 2010, May 4, 2010, May 1, 2010, September 13, 2009, September 20, 2008, September 8, 2007
WHERE:	New Haven & Northampton Canal Line	MassCentral Rail Trail	New Haven & Northampton Canal Line	MassCentral Rail Trail - West of Chestnut Street	MassCentral / Norwottuck Rail Trail - Bridge and Damon Road	MassCentral Rail Trail - North of Chestnut St. Norwottuck Rail Trail - East of Damon Road	New Haven & Northampton Canal Line - Payson Ave at Union
SUMMARY:	This count included five individual counts in May, July, and September, 2010. The counts were conducted on Saturdays (7:00a - 7:00p) and Tuesdays (7:30a - 9:30a, 11:30a - 1:30p, 4:30p - 6:30p.) The Saturday average was 650 total and the Tuesday average was 286 total.	This count by PVPC was performed between April and November in 2005. The average off-season weekday volume in April is 301 trail users and the average off-season weekday volume in November was 280 trail users. In July and August, the mid-week average was 417 trail users while the average weekend / holiday count was 470 trail users. An additional count of the Northampton City Bikeway utilized average weekday and weekend volumes to estimate an annual volume of 100,000 - 120,000 trail users utilizing the Northampton City Bikepath.	This count is comprised of daily automated counts performed between April and September 2008. The counts included variations for temperature and precipitation. The number of users along the MRT in Easthampton peaked in summer and early fall, and reached approximately 450 users per day for all trail users. During counts when some rain was observed, user totals dropped to as low as 170 per day. It is important to note that this data was collected before the connection to Northampton was completed.	This count performed by the Regional Metropolitan Planning Organization recorded the number of trail users between 7:00am and 7:00pm on September 8th, 2007. The peak hour for cyclists was 3:00p - 4:00p recording 35 cyclists while the peak hour for all trail users was 9:00a - 10:00a measuring 68 trail users	This count performed by the Regional MPO recorded the number of trail users on the MassCentral / Norwottuck Rail Trail at the bridge near Damon Road. The count took place on September 8th, 2007 -- a clear day with a temperature of 81 degrees. The peak hour recorded for cyclists was 1:15p - 2:15p measuring 109 cyclists. The peak hour for all trail users was 12:45p - 1:45p, recording 139 trail users.	This count utilized an Automatic Traffic Recorder and measured an average of 514 bicyclists on the MassCentral Rail Trail in 2005 and an average of 341 bicyclists in 2007. Additionally, the number of bicyclists counted on the MassCentral / Norwottuck Rail Trail in 2007 was 889.	These 11 counts conducted by the Regional MPO recorded the number of trail users on the New Haven & Northampton Canal Line between Payson Ave and Union Street between September, 2007 and May 2011. The average temperature was 69 degrees. The average number of cyclists recorded at the peak hour of each day was 37, while the average number of all trail users recorded at the peak hour of the day was 66 trail users.

## 5. Existing Conditions Analysis

The analysis of existing conditions has been divided into two sections: Current Conditions and System Gap Analysis. Current Conditions includes a graphic description of existing bicycle facilities, transit routes and the sidewalk/crosswalk network, while the System Gap Analysis inventories holes in the bicycle and pedestrian network and/or missing facilities for bicyclists and walkers.

### 5.1 CURRENT CONDITIONS

Alta conducted an analysis of current conditions based on field work, comments from City staff and the Project Advisory Committee, online resources, and through the examination of multiple sets of data.

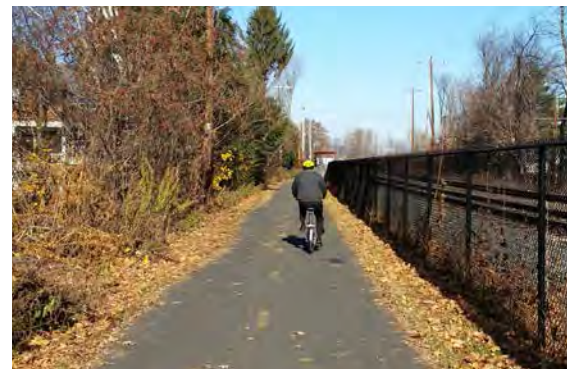
Northampton's bicycle facilities include an extensive rail trail system comprised of three legs:

- The MassCentral / Norwottuck Rail Trail from downtown out to Amherst
- The Mass Central Rail Trail from downtown to Haydenville
- The New Haven & Northampton Canal Line to Easthampton

All rail-trails are 10 foot wide, paved trails with a broken yellow divider line. In most instances, the trail crosses the various intersecting streets at grade, with connecting ramps where the trail passes above or below road grade at Jackson Street, Easthampton Road and a spot just north of Main Street. In addition to the rail trails, there are a few off-road trail segments in the city that comprise the overall bicycle network, including those in Florence Fields Recreational Area, connecting Rocky Hill Greenway with Florence Road and paths throughout the Smith College campus and Child's Park.

In addition to the rail trail network, Northampton has a modest network of on-street bicycle facilities, which include:

ON-STREET BIKE FACILITY DISTANCES	
Bike Lanes	8.5 miles
Shared Lane Markings	0.4 miles
ARTERIALS & COLLECTORS	
Total Length of Northampton Arterials & Collectors	32.4 miles
Bike Lanes on Arterials & Collectors	5.1 miles
Percentage of Bike Lanes on Arterials and Collectors	16%
Bike Lanes on Other Streets	3.4 miles
RAIL TRAILS	
MassCentral / Norwottuck	1.7 miles
MassCentral Rail Trail	5.1 miles
New Haven & Northampton Canal Line	2.7 miles
Total	9.5 miles
SIDEWALKS	
Total sidewalks:	71.7 miles



The trio of rail trails are the backbone of the bicycling network in Northampton



- **Elm Street bike lanes** between South Street and Child's Park with shared lane markings along Child's Park to the Prospect Street intersection (and for a short stretch between Bedford Terrace and Prospect Street)
- **Prospect Street/Finn Street bike lanes** from King Street to the intersection with North Elm
- **Shared lane markings along Main Street in Florence**, transitioning to striped bike lanes in North Main Street from Maple Street to Haydenville Road (includes the connections through the roundabout at Bridge Road)
- **Bridge Street bike lanes** from the on ramp access to I-91 southbound to Orchard Street
- **South Street bike lanes** from Old South Street to the Earle Street intersection, with most of the segment including a green striped buffer area for additional width
- **Rocky Hill Road striped shoulder** from Ice Pond Drive to the City Line with Westhampton

From a pedestrian infrastructure point of view, Northampton's sidewalk network is quite complete downtown, in the adjacent historic neighborhoods and along the radial road network extending away from downtown. Most sidewalks on residential streets are buffered from the adjacent roads by grassy strips, with sidewalks along narrow corridors and downtown separated from the roadway only by a granite curb. A number of streets in these areas lack a sidewalk on one side, with a handful lacking sidewalks entirely. Downtown, the retail environment and generous sidewalks along Main Street and the adjacent side streets create a strong sense of place that draws shoppers, diners and music lovers from throughout the region.



*With additional space available, the City striped green buffered bike lanes along South Street to provide a more comfortable environment for bicyclists*

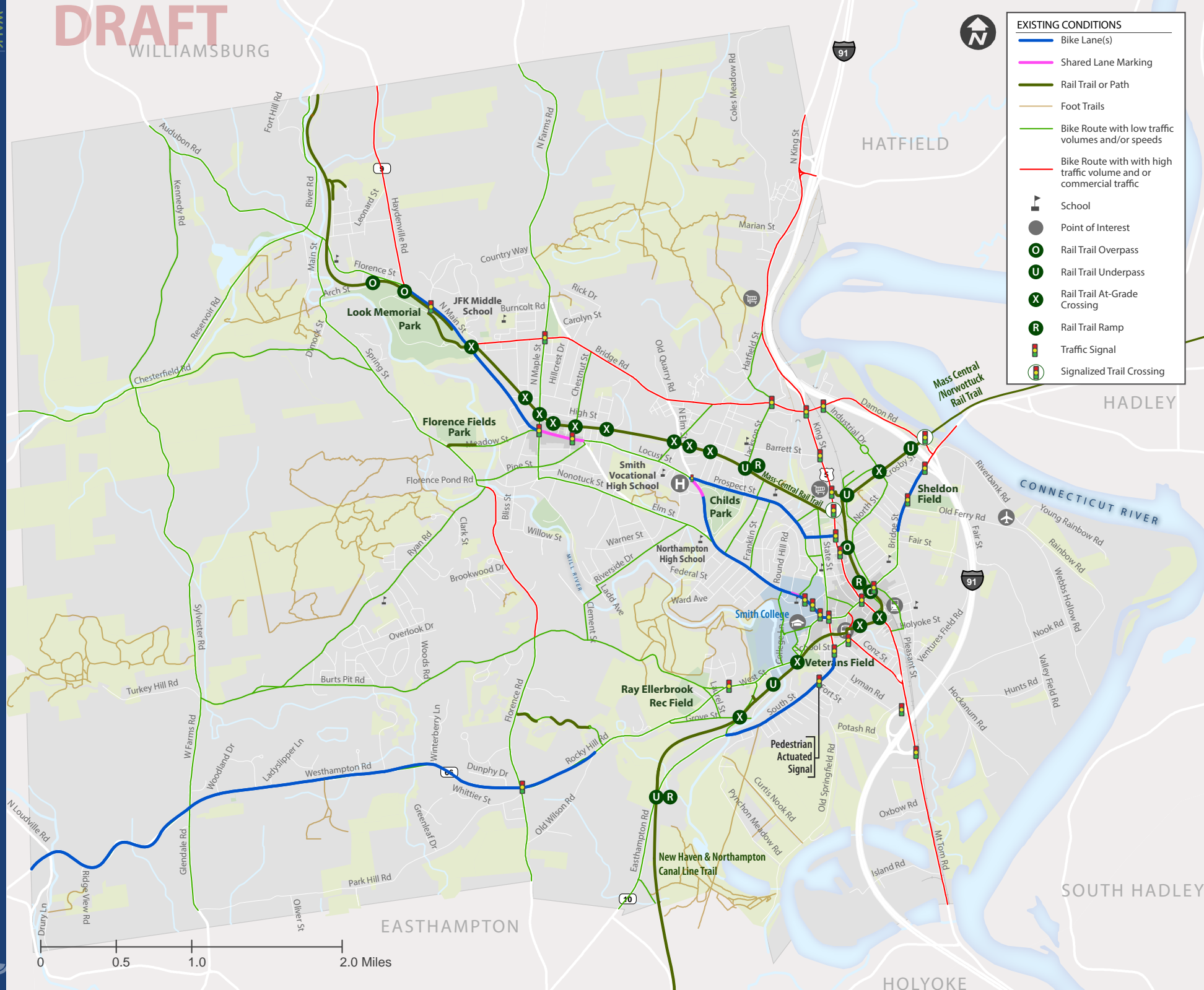


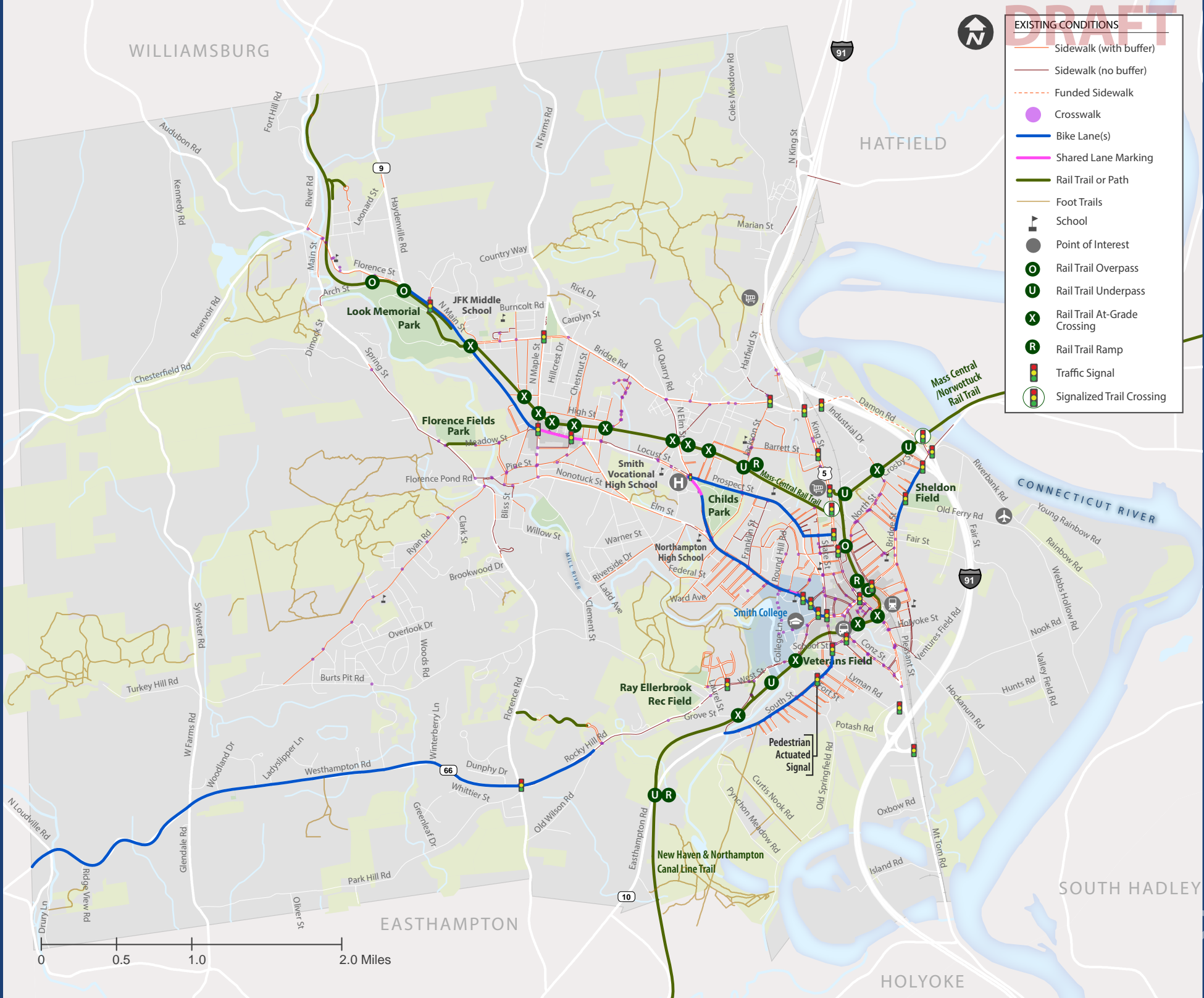
*Most sidewalks outside of downtown are five feet wide with grass strips between them and the adjacent roadway*



*Wide sidewalks in the heart of downtown help to create a strong sense of place*

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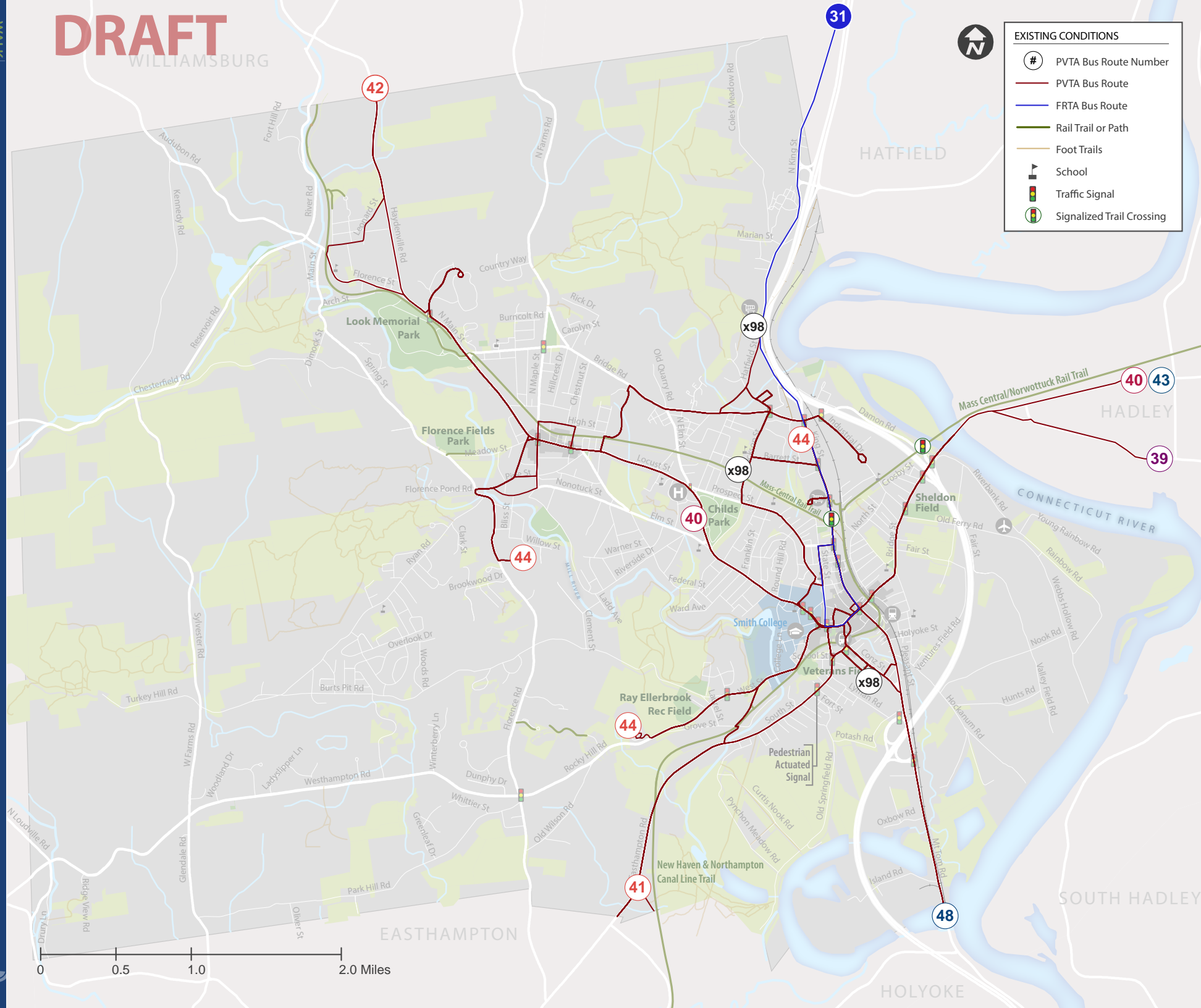




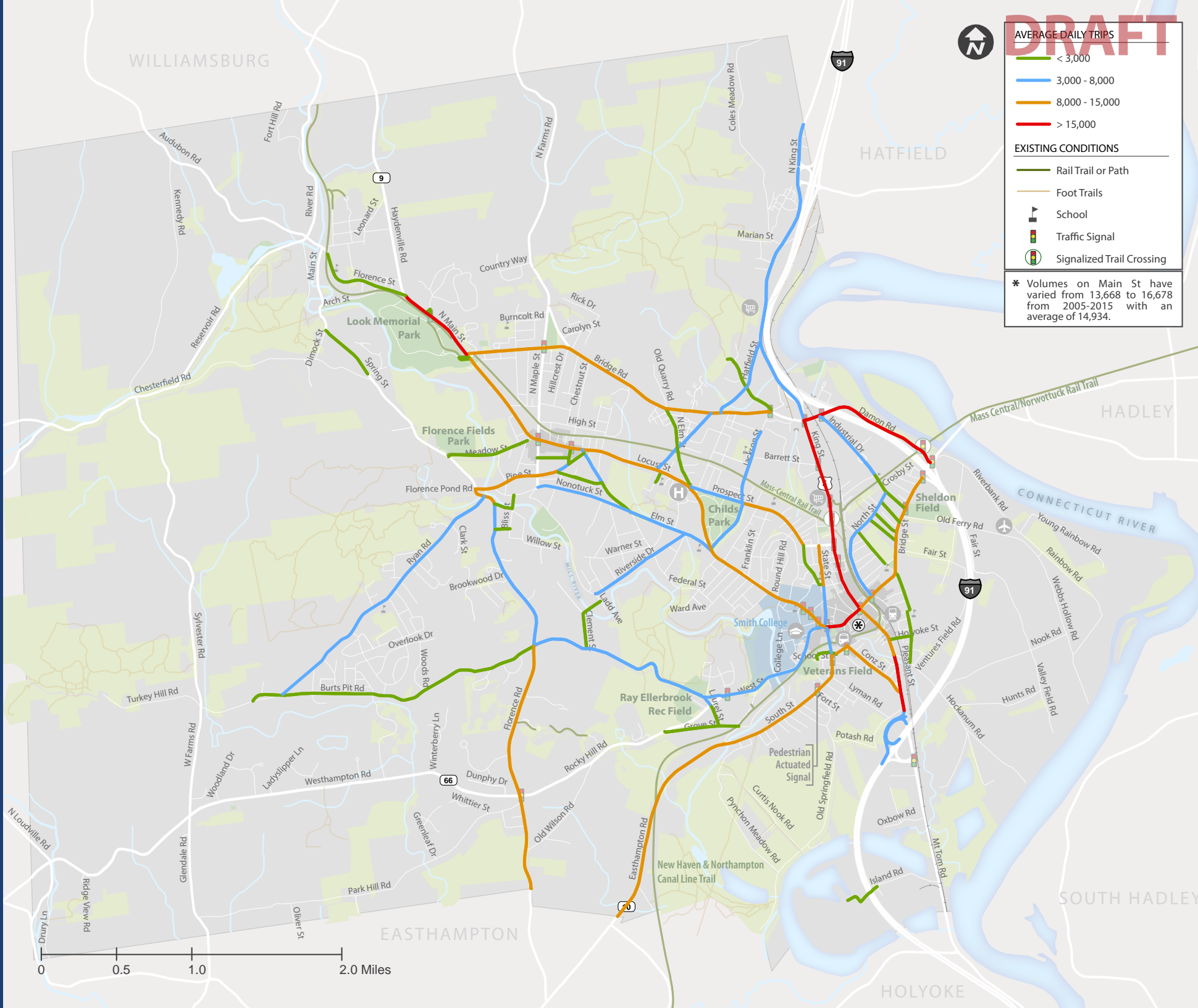
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- EXISTING CONDITIONS
- # PVTA Bus Route Number
  - PVTA Bus Route
  - FRTA Bus Route
  - Rail Trail or Path
  - Foot Trails
  - School
  - Traffic Signal
  - Signalized Trail Crossing







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**AVERAGE DAILY TRIPS**

- < 3,000
- 3,000 - 8,000
- 8,000 - 15,000
- > 15,000

---

**EXISTING CONDITIONS**

- Rail Trail or Path
- Foot Trails
- School
- Traffic Signal
- Signalized Trail Crossing

\* Volumes on Main St have varied from 13,668 to 16,678 from 2005-2015 with an average of 14,934.

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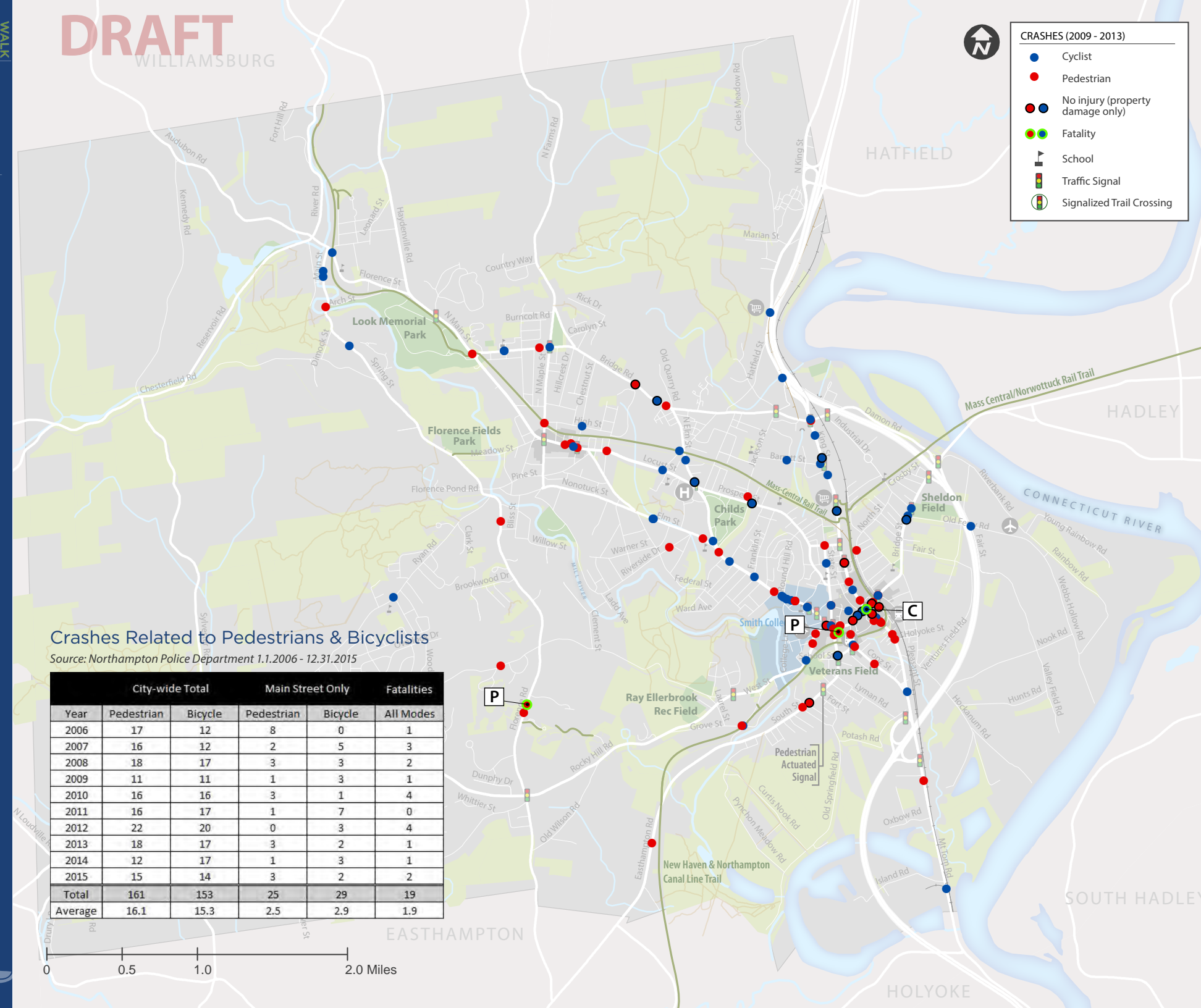


- CRASHES (2009 - 2013)
- Cyclist
  - Pedestrian
  - No injury (property damage only)
  - Fatality
  - School
  - Traffic Signal
  - Signalized Trail Crossing

### Crashes Related to Pedestrians & Bicyclists

Source: Northampton Police Department 1.1.2006 - 12.31.2015

Year	City-wide Total		Main Street Only		Fatalities
	Pedestrian	Bicycle	Pedestrian	Bicycle	All Modes
2006	17	12	8	0	1
2007	16	12	2	5	3
2008	18	17	3	3	2
2009	11	11	1	3	1
2010	16	16	3	1	4
2011	16	17	1	7	0
2012	22	20	0	3	4
2013	18	17	3	2	1
2014	12	17	1	3	1
2015	15	14	3	2	2
Total	161	153	25	29	19
Average	16.1	15.3	2.5	2.9	1.9



## 5.2 GAP ANALYSIS

As part of the existing conditions analysis, Alta conducted a qualitative system gap analysis based on field observations, existing planning documents and through the examination of GIS data, aerial imagery, and on-line mapping websites. The analysis includes existing rail trail and on-street networks and features Corridor Gaps, Linear Gaps, Spot Gaps, and intersections that are particularly challenging for bicyclists and pedestrians. This analysis provides an understanding of which areas have the greatest need for improvements, which areas can benefit most from strategic investment, and which areas pose the greatest challenges to further developing a bicycling and walking network.

**Corridor Gaps** – These gaps are missing links of significant length, typically a half mile or more, where bicycle/pedestrian facilities are desired but do not exist, or are not adequate based on existing or future demand. They may correspond to a street corridor or a desirable route connecting neighborhoods, popular destinations, or to adjacent communities.

According to the preliminary existing conditions analysis, significant Corridor Gaps occur generally on the outskirts of Northampton and include the:

- King Street/Rt. 5 corridor from downtown to Elm Street and beyond
- South Street/Rt. 10 from the end of the current bike lanes to Easthampton
- West Street/Route 66 from downtown to the existing shoulder on Rocky Hill Road at Old Wilson Road
- The corridor from N. Main Street and the Mass Central Rail Trail to the Broad Brook / Fitzgerald Lake Greenway and beyond, via North Maple Street

**Linear Gaps** – These gaps are missing segments in an otherwise connected facility, typically ¼ mile or less. Linear gaps may also be barriers between destinations and routes. Significant linear gaps occur in the sidewalk network in many parts of Northampton,

especially the more-suburban/rural areas where homes were developed in the 1960's through the first decade of the 21st century. (More-recent housing development is required to have sidewalks, as part of current subdivision regulations.) Key linear gaps in the bicycle network include the gap between the bike lanes and shared lane markings in central Florence and the Elm Street bike lanes from downtown to Child's Park. For the sidewalk network, one critical linear gap runs along the west side of State Street Main Street to Trumbull Road.

**Spot Gaps** – These gaps are point-specific locations lacking facilities or other treatments to accommodate safe and comfortable travel for walkers and bicyclists. This could range from a lack of crosswalk at a key location to a missing spur connection from a rail trail to an adjacent street of open space. There are various spot gaps within the pedestrian network throughout Northampton: a block lacking a sidewalk, a missing crosswalk at the end of a sidewalk stub, a worn path between a rail trail and adjacent street, and a wide roadway with an unnecessarily long crosswalk.

**Challenging Intersections** – These are intersections that are particularly difficult or unsafe for pedestrians and/or bicyclists. This may be due to wide intersecting roadways, free right turns, large turning radii, confusing geometry, long crossing distances, lack of crosswalks, or inadequate traffic controls. There are challenging intersections sprinkled throughout the city, with some of the most prominent being the West Street/Elm Street intersection, King Street/Damon Road, Elm Street/North Elm Street and Park Street/Meadow Street/North Main Street.



*The lack of bicycle facilities and continuous sidewalks along N Maple St creates a corridor gap between the Mass Central Rail Trail, Arcanum Field and the trails at the Fitzgerald Lake Conservation Area*



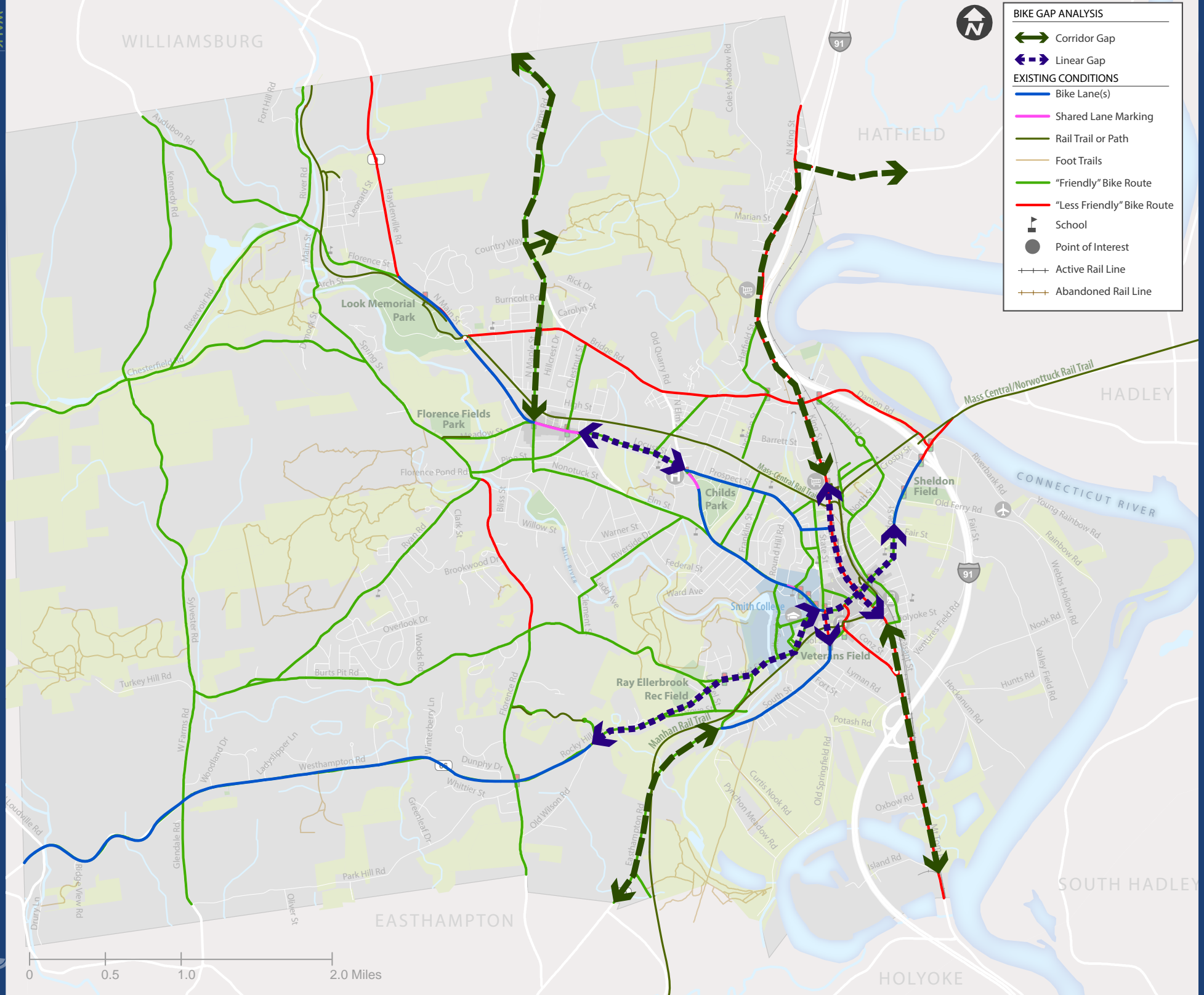
*The west side of State St is a linear gap in pedestrian connectivity downtown*



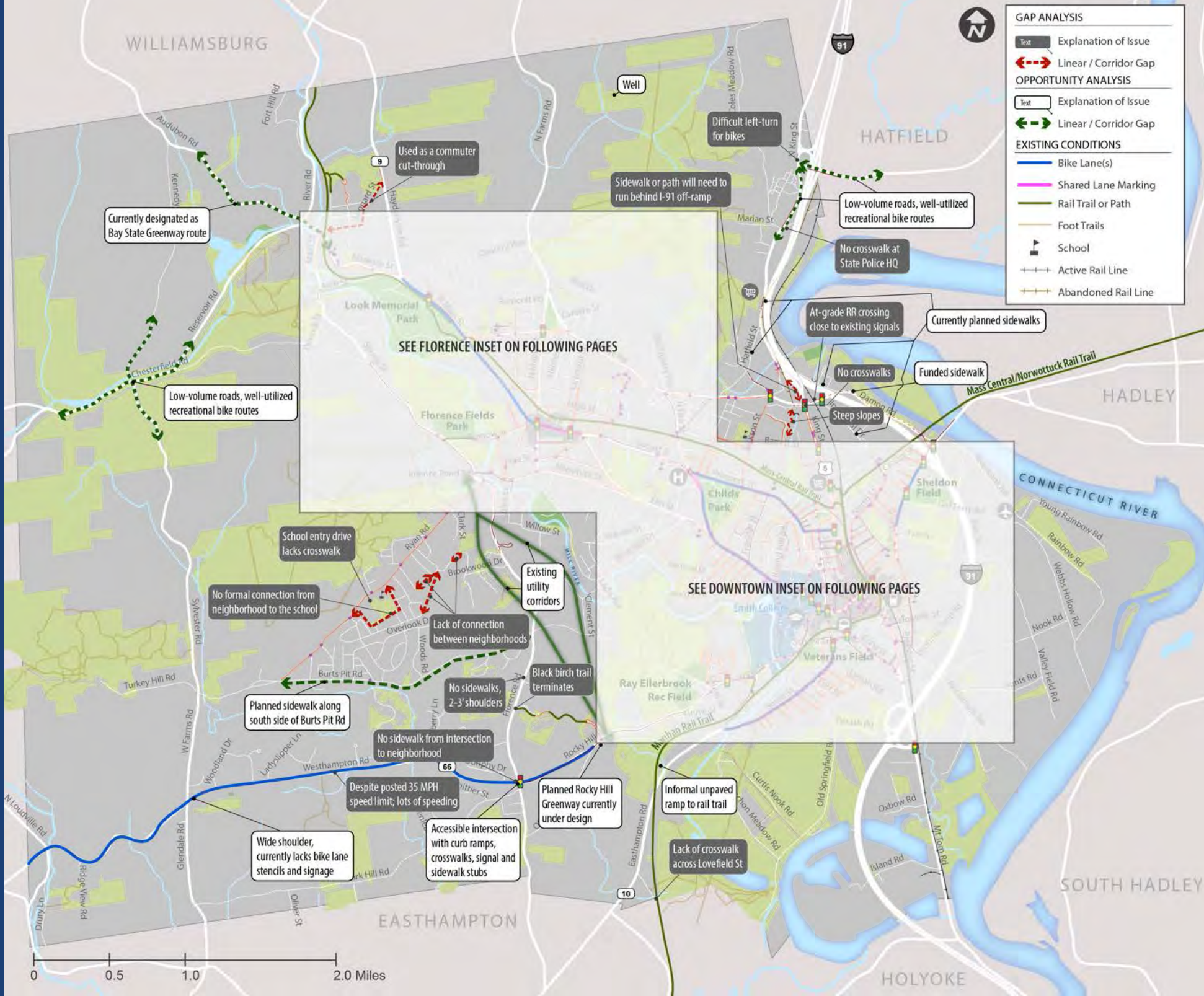
*Along the MassCentral Rail Trail, there are desire lines in spots indicating the need of easement rights across National Grid's utility corridor\**

*\*NOTE: This trail access is designed and planned for 2016 or 2017 construction*

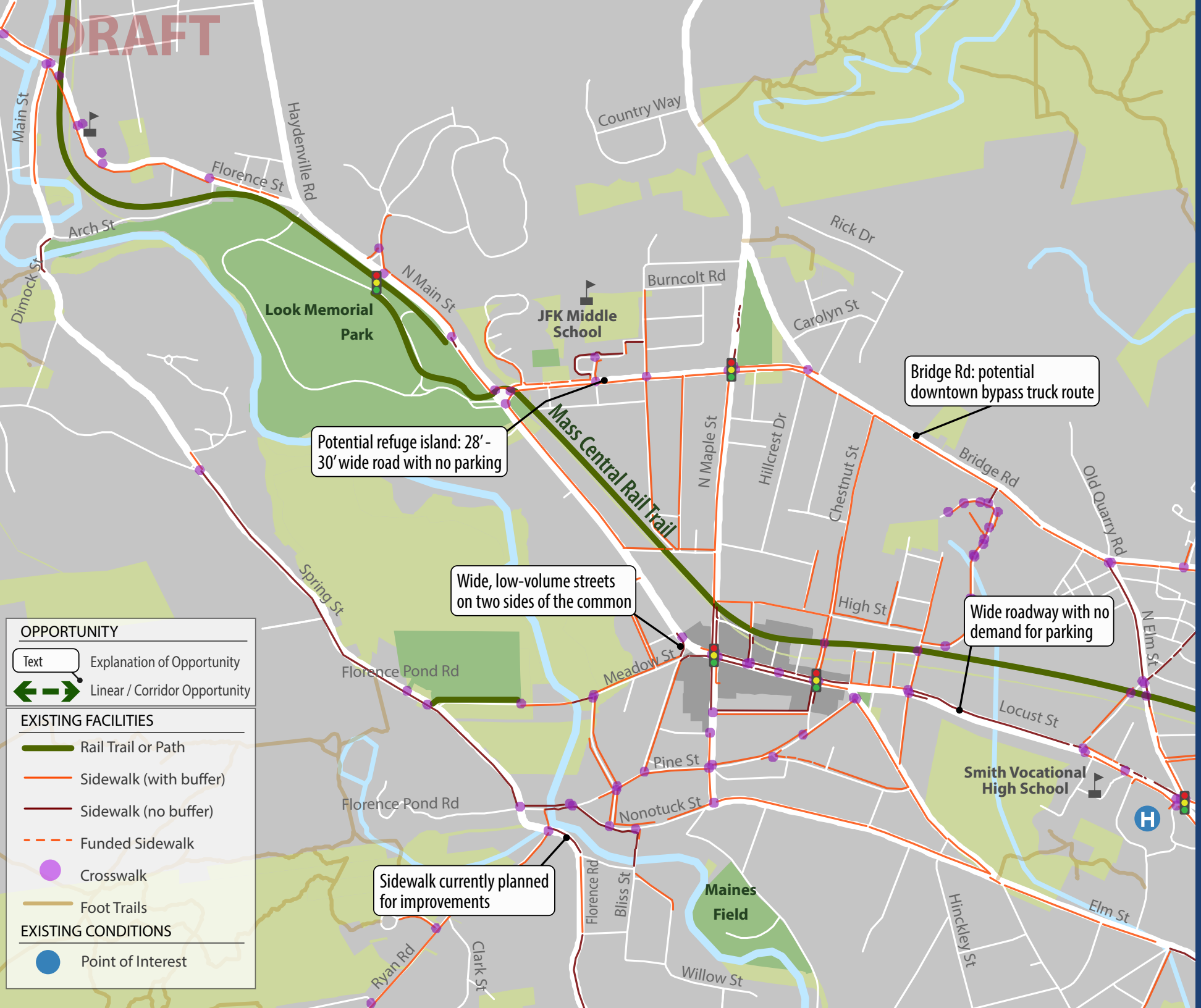








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OPPORTUNITY	
Text	Explanation of Opportunity
←-→	Linear / Corridor Opportunity

EXISTING FACILITIES	
	Rail Trail or Path
	Sidewalk (with buffer)
	Sidewalk (no buffer)
	Funded Sidewalk
	Crosswalk
	Foot Trails

EXISTING CONDITIONS	
	Point of Interest





The following photographs illustrate the challenges that exist in the pedestrian and bicycle network in Florence.



1



2



3



4



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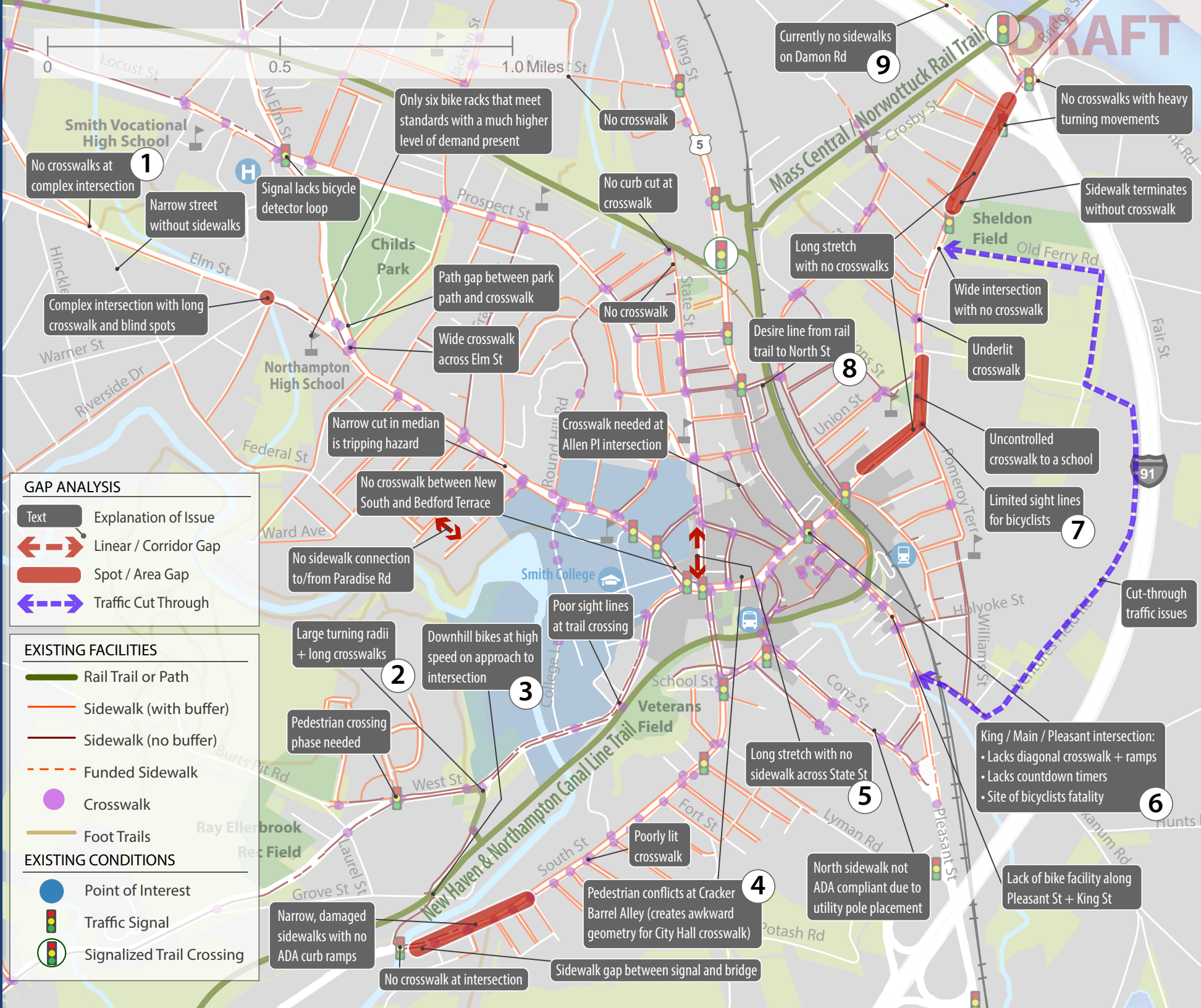


# DRAFT

The following photographs illustrate the challenges that exist in the pedestrian and bicycle network in Downtown Northampton.







## **TECHNICAL MEMORANDUM #1, APPENDICES**

- Appendix 2.2.1: Selected City of Northampton Zoning Ordinances
  - Table of Use, Dimensional and Density Regulations – EB District
  - Table of Use, Dimensional and Density Regulations – HB District
  - Highway Business (HB) District Landscape Standards
  - City of Northampton Bicycle Parking Guide
- Appendix 2.2.2: Selected City of Northampton Subdivision Regulations
- Appendix 2.2.3: Various Walk/Bike Policies
- Appendix 2.3: Walk/Bike Programs

## **Appendix 2.2.1: Selected City of Northampton Zoning Ordinances**

### **§350-2.1 General**

#### **BICYCLE PARKING**

An area within which one intact bicycle may be conveniently and securely stored and removed, without requiring the movement of other parked bicycles, vehicles, or other objects to access the space. Spaces are:

- A. Short-term: designed to serve trips of up to a few hours and shall include bicycle racks, a fixed-in-place stand, which allows a bicycle to lean against it in either an upright position with both wheels on a level surface, or in a vertical position; or
- B. Long-term: designed to serve residents and others who require storage of a bicycle overnight, and which is designed to securely enclose and protect bicycles from weather, being located in a building, garage, bicycle shed, covered bicycle cage, or bicycle locker.

#### **CYCLE TRACK**

A. An exclusive bike facility that is physically separated from motor traffic and distinct from the sidewalk. Cycle tracks have different forms but all share common elements: they provide space that is intended to be used exclusively or is used primarily for bicycles and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. In situations where on-street parking is allowed, cycle tracks are located to the curb side of the parking (in contrast to bike lanes).

B. Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. If at sidewalk level, a curb or median separates them from motor traffic, while different pavement color/texture separates the cycle track from the sidewalk. If at street level, they can be separated from motor traffic by raised medians, on-street parking, or bollards.

#### **MOTOR VEHICLE**

Any vehicle self-propelled by a battery-powered, electric or internal combustion engine, which are permitted and requires a valid registration legally issued by a governmental authority in order to be operated on a public way. A motor vehicle shall include but not be limited to automobiles, trucks, buses, motor homes, motorized campers, motorcycles, motor scooters, tractors.

### **§350-6.8 Other general dimensional and density provisions**

D. At no street intersection in any district shall any obstruction to vision exceeding three feet in height above the plane established by the intersection streets be placed or permitted to grow, on any lot within the triangle formed by the lot lines abutting the intersection and a line connecting points on these lot lines at a distance of 25 feet from the point of intersection of the

lot lines. This restriction shall also apply to the intersection of a street and a driveway in a B or I District.

E. A fence, hedge, wall, sign or other structure or vegetation may be maintained on any lot, provided that in the front yard area, no such structure or vegetation shall be over three feet in height above the adjacent ground within five feet of the front lot line unless it can be shown that such vegetation will not restrict visibility in such a way as to hinder the safe entry of a vehicle from any driveway to the street. In residential districts, no fence shall exceed a height of 6 1/2 feet (eight feet when abutting a nonresidential district) unless a special permit has been received from the Zoning Board of Appeals.

#### §350-8.1 Off-Street parking requirements

Sets minimum parking spaces for different types of structures and uses

C. Table of Off-Street Parking Regulations. Parking shall be provided to serve the parking needs which are generated by a particular use or structure. When there is more than one primary use of a structure, the parking requirements for each use must be met unless one use is incidental to the principal use of the structure. Additional spaces where passengers may be dropped off may be required by the Planning Board for projects which require site plan approval.

**Table of Off-Street Parking Regulations**

<b>Use</b>	<b>In Central Business (one space per)</b>	<b>All Districts other than CB (one space per)</b>
Any dwelling unit (including residential component of mixed residential/work space), except as noted below		500 square feet of gross floor area, up to a maximum of two per dwelling unit
Multifamily dwelling for elderly and people with disabilities, lodging house, dormitory, SRO, and halfway house		1,000 square feet of gross floor area, up to a maximum of one per dwelling unit for multifamily dwellings
Theater, gymnasium, auditorium, church or similar place of public assembly, with seating facilities	Six seats of total seating capacity	Three seats of total seating capacity
Automobile retail, sales, rental, service, and wash, and nonauto retail and service establishment utilizing extensive indoor and outdoor display areas		800 square feet of gross floor space, including outdoor display areas.
Hotel, motel, bed-and-breakfast (See restaurant entry for associated restaurants which are open to nonguests.)	Establishment, plus one per sleeping room, plus one per 400 square feet of meeting rooms	Establishment, plus one per sleeping room, plus one per 400 square feet of meeting rooms
Takeout restaurants (establishments selling foods prepared on premises, where consumption is primarily off the premises)		1.3 seats of seating capacity, plus one per 100 square feet of kitchen and waiting areas



### Table of Off-Street Parking Regulations

Use	In Central Business (one space per)	All Districts other than CB (one space per)
Sit-down restaurants		Two seats of total seating capacity
Bars and nightclubs	Four seats of total seating capacity	Two seats of total seating capacity
Commercial, retail, personal service, professional and business offices, including banks, insurance and real estate establishments, but not medical uses		300 square feet of gross floor area
Medical/Dentist offices medical marijuana dispensaries		200 square feet of gross floor area
Manufacturing, industrial, utility, power plant, warehouse, storage, or wholesale establishment (calculate associated office with office use)		1,000 square feet gross floor space
Hospital (excluding medical offices and uses which are not part of the hospital definition)		500 square feet gross floor area
Kindergarten to 12th grade schools, YMCA, community facility (City building, recreation), library, museum, funeral parlor, and country club		400 square feet of gross floor area
College, business, trade, or industrial school classroom, laboratory, and other teaching areas		200 square feet of gross floor area (no parking required for on-campus auditoriums of 300+ seats)
Mixed use		Sum of various uses computed separately
Temporary and seasonal uses in unheated outdoor space in any business or industrial district		None required
Any permitted use not covered by this schedule		Closest use determined by Building Commissioner

#### §350-8.6 Shared parking

Can reduce parking space requirements up to 20% with trip-reduction plan

#### §350-8.10 Special provisions in Central Business District for meeting off-street parking requirements

Can pay \$2,000 per parking space into Downtown Parking Reserve Account

### §350-8.11 Bicycle parking

A. Bicycle parking shall be provided for any new building, addition or enlargement of existing building, or, except for in the Central Business District, for any change in the use of a building.

B. The number of bicycle parking spaces shall be calculated using the following table.

**Table of Short-Term and Long-Term Bicycle Parking Requirements**

<b>Use</b>	<b>Bicycle Parking Requirement*</b>
Residential, hotel, motel, bed-and-breakfast	0.1 space per dwelling unit or hotel room (of which at least 50% shall be long-term)
Theater, gymnasium, auditorium, church, takeout or sit-down restaurant, bar, nightclub, YMCA, library, museum, funeral parlor, country club, community facility, commercial, retail, seasonal retail, personal service, office, hospital, other medical uses	1.0 space per 1,000 square feet
Manufacturing, industrial, utility, power plant, warehouse, storage, wholesale establishment, automobile retail, sales, rental, service and wash	0.1 space per 1,000 square feet
K-12 school, college, classroom, laboratory, and other teaching areas	5.0 spaces per classroom
Mixed use	Requirements for each use
Business, trade, or industrial school	2 per classroom
Temporary uses in unheated outdoor space in any business or industrial district	None required
Any permitted use not covered by this schedule	Closest use determined by Building Commissioner

**NOTE:**

\*The Office of Planning and Sustainability can authorize a reduction in parking requirements when there are unique reasons why new bicycle parking is not required, including the availability of adequate public bicycle parking, or accept payment in-lieu of bicycle racks when providing racks on public property provides a better option.

C. All short-term bicycle parking shall incorporate bicycle racks and the following additional specifications (See Northampton Bicycle Parking Guide for graphics and precedents.):

(1) Bicycle racks shall be located within 50 feet of the primary building entrance. If the primary building entrance is within 50 feet of the public right-of-way, the bicycle rack should also be located adjacent to public streets or sidewalks or, with City approval, within the public right-of-way.

(2) Bicycle racks shall allow at least 2.5 feet of clear horizontal distance from the center point of the bicycle rack in a direction perpendicular to the length of the bicycle, and at least three feet of clear horizontal distance from the center point of the bicycle rack in each direction parallel to the length of the bicycle, to provide adequate space to store and remove a standard bicycle.

(3) Bicycle racks shall be arranged either in rows (bicycles are parked side-to-side) or in alignment (bicycles are parked end-to-end). Where bicycle racks are arranged in rows, they shall be spaced at least 2.5 feet apart on center. Where bicycle racks are arranged in alignment, they shall be spaced at least eight feet on center.

(4) When a bicycle rack is placed perpendicular to the curb, it must be located on the sidewalk with at least four feet from the curb to the nearest vertical component of the bicycle rack, and units placed parallel to the curb must be placed on the sidewalk with at least two feet from the curb to the bicycle rack.

(5) Bicycle racks shall be at least eight feet from a curbside or wall fire hydrant.

(6) Where 20 or more bicycle parking spaces are required, at least 5% of the required spaces must provide an additional two feet of space parallel to the length of the bicycle to accommodate tandem bicycles or bicycles with trailers.

(7) Bicycle racks shall include surfacing that is designed and maintained to be mud and dust free. The use of rock or gravel areas is permitted, provided that edging materials, such as landscape timbers, are used so that the bicycle parking space is clearly demarcated and the rock material is contained.

(8) With the exception of residential uses, bicycle racks must be sufficiently separated from motor vehicle parking areas to protect parked bicycles. The separation may be accomplished through grade separation, distance or physical barrier, such as curbs, wheel stops, poles, vegetation, or similar features.

(9) With the exception of single- and two-family uses, bicycle racks must be accessible by way of at least one clear, lighted, ADA-accessible stabilized-surface five-foot-wide access route from bicycle parking to a public right-of-way that does not require carrying the bicycle and is free of any obstructions.

(10) Bicycle racks that require a user-supplied locking device shall be designed to accommodate both chain and U-shaped locking devices and shall support the bicycle frame at two locations (not just the wheel).

(11) Bicycle racks may provide bicycle parking spaces on each side, provided that both sides meet the spacing requirements set forth herein. If a bicycle rack meets the spacing requirements on one side of the stand but not the other (as may be the case where a bicycle rack is attached to a wall), then it may provide bicycle parking spaces on that side only.

(12) The preferred designs for bicycle racks are post and loop, and inverted "U." Other designs may be approved by Planning Board or Office of Planning and Sustainability to allow new or innovative technologies that provide equal or greater convenience and accessibility to bicyclists when compared to facilities designed according to the Northampton Bicycle Parking Guide standards.

B. The application for site plan approval shall be accompanied by a site plan, drawings and supporting documentation in a form specified by rules and regulations which shall show, among other data, the following:

(3) Estimated daily and peak hour vehicle trips generated by the proposed use, traffic patterns for vehicles and pedestrians showing adequate access to and from the site, and adequate vehicular and pedestrian circulation within the site. In addition, major projects, as defined above, shall prepare a traffic impact statement including the following information:

(a) Traffic flow patterns at the site including entrances and egresses, loading and unloading areas, and curb cuts on site and within 100 feet of the site.

(b) A plan to minimize traffic safety impacts of the proposed project through such means as physical design and layout concepts, staggered employee work schedules, promoting use of public transit or van- or carpooling, or other appropriate means. For new commercial, office, and industrial buildings or uses over 10,000 square feet, this plan shall evaluate alternative mitigation methods to reduce traffic by 35%, including:

[1] Public transit, van- and car-pool incentive programs, including parking facilities and weather-protected transit shelters;

[2] Encouraging flexible hours and workweeks;

[3] Encouraging pedestrian and bicycle access to the site;

[4] Provision of integrated land uses, including on-site services, retail, and housing.

(c) A detailed assessment of the traffic safety impacts of the proposed project or use on the carrying capacity of any adjacent highway or road, including the projected number of motor vehicle trips to enter or depart from the site for daily-hour and peak-hour traffic levels, road capacities, and impacts on intersections. Said assessment may be based on the proposed mitigation [in the plan required by Subsection **B(2)** above].

(d) An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.

(e) Safe and adequate pedestrian access, including provisions for sidewalks and/or bike paths to provide access to adjacent properties and adjacent residential neighborhoods, as applicable, and between individual businesses within a development.

#### §350-11.6 Approval criteria [for site plan]

In conducting the site plan approval, the Planning Board shall find that the following conditions are met:

B. The requested use will promote the convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, cycle tracks and bike paths, minimize traffic impacts on the streets and roads in the area. If applicable, this shall include considering the location of driveway openings in relation to traffic and adjacent streets, cross-access easements



to abutting parcels, access by public safety vehicles, the arrangement of parking and loading spaces, connections to existing transit or likely future transit routes, and provisions for persons with disabilities; and:

(1) The Planning Board may allow reduced parking requirements in accordance with § 350-8.6, Shared parking.

(2) The project, including any concurrent road improvements, will not decrease the level of service (LOS) of all area City and state roads or intersections affected by the project below the existing conditions when the project is proposed and shall consider the incremental nature of development and cumulative impacts on the LOS. The project proponent must demonstrate that all cumulative and incremental traffic impacts have been mitigated. If those impacts are not mitigated, the Planning Board shall require in-lieu-of payments to fund a project's proportional share of necessary improvements to mitigate off-site traffic impacts, including provision of public transit and pedestrian or bicycle paths, in lieu of requiring off-site improvements. All in-lieu-of payments will be expended with the approval of the Mayor and City Council only after first being introduced for recommendation to the Transportation and Parking Commission, consistent with Planning Board conditions. In-lieu-of traffic mitigation payment shall be assessed by the Planning Board after a fact-based analysis of a specific project but shall not exceed that shown in the table below. Past experience has been that mitigation of all traffic impacts would be higher than the maximum amount allowed and so many projects are assessed the maximum allowed by the table. The Board may exempt residential projects whose traffic impacts are not greater than if they were developed as an as-of-right development without site plan approval and subdivision approval.

<b>Project Location</b>	<b>Required Payment</b>
Any medical marijuana project regardless of the district (regardless of other entries below)	\$2,000 per peak trip
CB, GB, EB, GI and OI Zoning Districts; PV District, except for medical and dental offices; and NB District, except for uses with gas pumps	No mitigation
M, URC, and URB Zoning Districts	\$1,000 per peak trip
HB Zoning District; PV District for project for medical and dental offices; NB Districts for uses with gas pumps; BP Districts with nonexempt uses; and BP, SR, URA, SC and RR Zoning Districts for sites (1) within 500 feet of a transit stop, or (2) within 500 feet of an asphalt or concrete City off-road rail trail or bicycle path, or (3) abutting a sidewalk that extends without a break from the project to either downtown Northampton or downtown Florence	\$2,000 per peak trip
Any other site in SR, URA, SC, and RR Zoning Districts and any other BP residential use	\$3,000 per peak trip

Notes Peak trips are the number of one-way trips into or out of the project during the project's peak traffic demand, typically but not always weekday afternoon "rush hour." Peak-hour trips are

**Project Location****Required  
Payment**

calculated based on the table below or, if (and only if) the table does not address a project, the Institute of Traffic Engineers' (ITE) trip generation data. The Planning Board retains the ability to use alternative calculations if clear evidence to the contrary is provided (for example, considering lower traffic generation from pass-by trips, late-night shift changes, and mixed-use projects).

<b>Project Type</b>	<b>Peak-Hour Trips</b>
Residential	1/dwelling unit
Congregate and assisted living	0.6/dwelling unit
Grocery, personal services, retail and auto sales, medical marijuana dispensary	12/1,000 square feet
Medical marijuana growing and processing facilities	1/1,000 square feet
Restaurants and bars	20/1,000 square feet
Gas, convenience stores, fast-food restaurants	100/1,000 square feet
Medical and dental offices	5/1,000 square feet
Other offices	2/1,000 square feet
Industrial, manufacturing, tradesman, professional (but not medical and dental) offices, and municipal uses	Exempt
Warehouses	0.6/1,000 square feet
Schools, day-cares, churches, libraries, etc.	10/1,000 square feet
Hotel/Motel	0.5/room

(3) Access by nonmotorized means must be accommodated with facilities such as bike racks, sidewalk connections from the building to the street, cycle tracks, and bike paths that are clearly delineated through materials and/or markings to distinguish the vehicular route from the nonvehicular route.

C. The site will function harmoniously in relation to other structures and open spaces to the natural landscape, existing buildings and other community assets in the area as it relates to landscaping, drainage, sight lines, building orientation, massing, egress, and setbacks. Rear and/or side wall facades within 50 feet of a completed or planned section of a cycle track or bike path shall have features that invite pedestrian access from that side of the building;

F. Compliance with the following technical performance standards:

(1) Curb cuts onto streets shall be minimized. Access to businesses shall use common driveways, existing side streets, or loop service roads shared by adjacent lots when possible. More than one curb cut shall be permitted only when necessary to minimize traffic and safety impacts.

(2) Pedestrian, bicycle and vehicular traffic movement on site must be separated, to the extent possible, and sidewalks must be provided between businesses within a development and from public sidewalks, cycle tracks and bike paths. All projects shall include sidewalks and tree belts abutting the street, except where site topography or other limitations make them infeasible. In such cases where the sidewalk is infeasible, the developer shall install an equal number of feet of sidewalk and/or tree belt in another area of the community as deemed by the Planning Board or Office of Planning and Sustainability. All sidewalks shall meet the following standards:

(a) All internal and external sidewalks will be constructed of cement concrete. Sidewalks will be at least six feet in width in all commercial zoning districts and all industrial zoning districts. In all residential zoning districts, sidewalks shall be at least five feet in width.

(b) If gratings are located in walking surfaces, then they shall have spaces no greater than 1/2 inch wide in one direction. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

(c) Ramps allowing access to the sidewalk and street by variously abled persons shall be required at the corner or within the curb area immediately adjacent to the sidewalk.

(d) For any new driveway, the portion of the driveway that crosses the sidewalk shall conform to the sidewalk requirements set forth herein, regardless of whether there is a sidewalk improvement extending along the balance of the frontage property, with sidewalks constructed with extra depth to withstand cars.

(e) The sidewalk cross slope of 1:50 should be maintained across the entire driveway. The driveway apron should be located in the tree belt between the pedestrian way and the roadway.

(f) Curb extensions may be used at any corner location, or at any mid-block location where there is a marked crosswalk, provided there is a parking lane into which the curb may be extended. They may include transit stops. Curb extensions must be designed so as not to impede bicycle traffic. Curbs may be extended into one or both streets at a corner. No obstructions or private use should occur in the curb extension.

#### §350-13.6 Development conditions

The following conditions shall apply for the development of any portion of land within the SC District that is at or below the one-hundred-year floodplain:

H. Safe vehicular and pedestrian movement to, over, and from the premises should be provided with the exception that all roads and driveways shall be at or near grade level to prevent unwarranted diking.

#### §350-14.6 Development conditions

The following conditions shall apply for the development of any portion of land within the Floodplain District that is at or below the one-hundred-year floodplain:

F. Safe vehicular and pedestrian movement to, over, and from the premises should be provided with the exception that all roads and driveways shall be at or near grade level to prevent unwarranted diking.

#### §350-16.3 Criteria for special permit approval

The following conditions must be met for any planned business park special permit, in addition to § **350-10.1** criteria for special permit approval:

C. At least 50% of the total tract area (of which at least 75% shall not be wetlands), excluding screening and buffers required under § **350-6.5** and detention ponds and structures which require on-going maintenance, shall be set aside as open-space common land. Common land must be easily accessible for pedestrians from the developed areas of the park and must have suitable pedestrian access to a street.

F. Roads and utilities adequate to serve each stage of development, including the percent of residential development required, must be installed prior to the occupancy of any structure within that stage of development.

J. Site plans must be provided in accordance with § **350-11**, Site Plan Approval. None of the requirements for information on the site plan may be waived.

#### §350-20 Sustainable Growth Overlay District (SG)

##### §350-20.1 Purpose

It is the purpose of this § **350-20** to establish a Sustainable Growth Overlay District (SG) and to encourage smart growth in accordance with the purposes of MGL c. 40R, and to foster a range of housing opportunities along with a mixed-use development component, to be proposed in a distinctive and attractive site development program that promotes compact design, preservation of open space, and a variety of transportation options. Other objectives of this § **350-20** are to:

F. Establish development standards to allow context-sensitive design and creative site planning

##### §350-20.9 Parking requirements [for SG]

Parking requirements shall be as set forth in § **350-8**, effective as of December 1, 2006.

##### §350-20.12 Application for plan approval [for SG]

C. Estimated daily and peak-hour vehicle trips generated by the proposed use, traffic patterns for vehicles and pedestrians showing adequate access to and from the site, and adequate vehicular and pedestrian circulation within the site. For nonresidential and mixed-use Projects, at the request of the PAA, an applicant shall prepare a traffic impact statement including the following information:

(1) Traffic flow patterns at the site, including entrances and egresses, loading and unloading areas, and curb cuts on site and within 100 feet of the site.

(2) A plan to minimize traffic safety impacts of the proposed project through such means as physical design and layout concepts, staggered employee work schedules, promoting use of public transit or van or car-pooling, or other appropriate means. For new commercial, office, and industrial buildings or uses over 10,000 square feet, this plan shall evaluate alternative mitigation methods to reduce traffic by 35%, including:



- (a) Public transit, van and car-pool incentive programs, including parking facilities and weather-protected transit shelters;
  - (b) Encouraging flexible hours and work weeks;
  - (c) Encouraging pedestrian and bicycle access to the site; and
  - (d) Provision of integrated land uses, including on-site services, retail, and housing.
- (3) A detailed assessment of the traffic safety impacts of the proposed Project or use on the carrying capacity of any adjacent highway or road, including the projected number of motor vehicle trips to enter or depart from the site for daily-hour and peak-hour traffic levels, road capacities, and impacts on intersections. Said assessment may be based on the proposed mitigation (in the plan required by Subsection **B** above).
- (4) An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.
- (5) Adequate pedestrian access, including provisions for sidewalks to provide access to adjacent properties and between individual businesses within a development.

Chapter 350 Attachment 12

Table of Use, Dimensional and Density Regulations

HB Design Standards: detailed sidewalk and walkway requirements

# ZONING

## 350 Attachment 10

**City of Northampton  
Table of Use, Dimensional and Density Regulations**

ENTRANCEWAY BUSINESS DISTRICT (EB)						Building/ Site Design (applies to all facade and roof changes)
Allowed Uses (by right unless otherwise noted) -any mix or their accessory uses/structures, including common drives	If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)	If checked, special permit approval required by designated board	Dimensions (same for all uses)	Landscaping (same for all uses)	Minimum Parking (same for all uses)	
All retail, wholesale and business sales and supply of goods and services. Establishments with drive- through component are not allowed.			Minimum lot size = 0 Frontage/Width/Depth = 0	<b>Along street:</b> When building abuts sidewalk, no landscaping between building and sidewalk; otherwise, minimum 8-foot buffer as stated below (w/o trees) or plaza are required between sidewalk and building AND A 10-foot-deep planted buffer between sidewalk and parking lot shall include 1 shade tree per 25 feet of lot frontage in addition to mix of shrubs, grasses, perennials, seating, etc. Turf grasses only allowed by Planning Board site plan approval. Sustainable, no-mow grasses are strongly encouraged. Screening shall be at least 3 feet high upon planting to screen car grills. See City list for shade trees, <a href="http://www.northampton.ma.gov/planbd/">http://www.northampton.ma.gov/planbd/</a> Parking lots shall be designed to prevent bumpers from overhanging 10-foot buffer. Additionally, to accommodate increased pedestrian traffic when site plan is triggered, a 10-foot cement concrete sidewalk shall be constructed along the length of the property in the right-of-way unless	<input type="checkbox"/> Based on footprint/GFA in accord with table § 350-8.1  <input type="checkbox"/> One bike rack per 10 parking spaces up to 15 required (indoor or outdoor). Storage must allow locking of bicycles to racks or inside storage containers.  <input type="checkbox"/> See remaining portion of § 350-8 for other provisions to share or reduce parking.  <input type="checkbox"/> No additional off-street parking is required for:  (1) Continued use or reuse of existing buildings, as long as that use increase does not increase the total floor area within the building nor include outside storage of cars for sale or rent.  (2) The replacement of	Any proposed landscaping and pedestrian malls or plazas shall be constructed between the building and the front lot line, but may wrap around the side of the building.  All facades visible from a public way shall comply with the following:  <input type="checkbox"/> Street facade shall include a door facing the street or on the corner of the building. Windows and doors shall comprise at least 30% of each floor's front wall unless other projections or elements are used to enhance the pedestrian experience.  <input type="checkbox"/> Facades facing
Office with drive-through component	✓	✓ Planning Board	Setbacks: Front = 0* Side = 0 Rear = 0  Minimum height = 20 feet Maximum height = 65 feet			
Office (no drive-through)						
Restaurant (drive-through not allowed), bar, entertainment, community center						
Hotel/Motel						
Health/Athletic club, indoor recreation, membership club operated for profit or nonprofit						
Any residential use above the first floor, home office/occupation			Open space = N/A (see land- scape/screening)			
Commercial or public parking lot or structure, passenger terminal/stand	✓					
Facilities for essential services, municipal facility Education, religious use, day care, school-aged child-care program (MGL c. 28A, § 9), family day care (with registration with Building Commissioner), historical association, and nonprofit museum (residence of a caretaker above first floor only)			* No parking allowed between street and building and the horizontal plan extended from the building running parallel to the sidewalk.			
Agricultural uses; horses and animals as accessory uses in accordance with § 350-5.3						
Tradesman, artist's space						
Temporary event						
Funeral establishment						
Veterinary hospital in which all animals are kept inside permanent buildings						
Access to parking over residential lot; see § 350-8.9	✓	✓ Planning Board				
Addition of 6 or more parking spaces	✓					
Automotive repair (not junkyard) without gasoline sales	✓					

ENTRANCEWAY BUSINESS DISTRICT (EB)						
Allowed Uses (by right unless otherwise noted) -any mix or their accessory uses/structures, including common drives	If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)	If checked, special permit approval required by designated board	Dimensions (same for all uses)	Landscaping (same for all uses)	Minimum Parking (same for all uses)	Building/ Site Design (applies to all facade and roof changes)
Telecommunications antennas which are located on existing telecommunications towers or other structures which do not require the construction of a new tower (in accordance with § 350-10.9)	✓					
More than one curb cut (more than one existing may remain unless change of use triggers site plan)	✓	✓ Planning Board				
Automotive service station (not junkyard) with or without convenience commercial, selling leasing renting automobiles and/or used automobiles and trucks, new automobile tires and other accessories, boats, motorcycles and household and camping trailers	✓	✓ Planning Board				
Private utility, substation or similar facility or building	✓					
Power plant or district utility	✓	✓ Planning Board				
New telecommunications structures/facilities (in accordance with §§ 350-2.1 and 350-10.9)	✓	✓ Planning Board				residential districts shall be designed to minimize impacts and noise, including special care to enclose HVAC or other accessory equipment. <input type="checkbox"/> For buildings less than 30 feet high, roof lines should have a minimum pitch of 5:12 unless approved otherwise by the Planning Board.
				<b>Building Reside</b> Planning Board for a site plan approval for a building along the boundary with any residentially zoned lot. It shall contain a screen of plantings of vertical habit in the lot. <b>Site plan approval</b> not required for a building in width of 6 feet or less for additional occupancy of existing lots.	existing finished floor space and un finished basements on the same parcel with site plan approval (but no increase in net floor space)	
				<b>Building Reside</b> Planning Board for a site plan approval for a building along the boundary with any residentially zoned lot. It shall contain a screen of plantings of vertical habit in the lot. <b>Site plan approval</b> not required for a building in width of 6 feet or less for additional occupancy of existing lots.	(3) Municipal facilities or projects.	
350 Attachment 10.2				Landscaped islands constructed to meet the	Parking shall not be located within 10 feet of front lot	

# ZONING

ENTRANCEWAY BUSINESS DISTRICT (EB)						
Allowed Uses (by right unless otherwise noted) -any mix or their accessory uses/structures, including common drives	If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)	If checked, special permit approval required by designated board	Dimensions (same for all uses)	Landscaping (same for all uses)	Minimum Parking (same for all uses)	Building/ Site Design (applies to all façade and roof changes)
				<p>Individual shrubs shall be planted not more than 5 feet on center, and individual trees thereafter shall be maintained by the owner or occupants so as to maintain a visually impervious screen (upon planting) year-round. At least 50% of the plantings shall be evenly spaced.</p> <p>The buffer may be reduced to a minimum 20-foot width if the Planning Board finds that a site-impervious wall or fence will be erected of appropriate materials and sufficient height to screen adjoining properties and will provide at least as much mitigation as the vegetated barrier described above.</p> <p>Existing trees and ground cover should be preserved in this strip, reducing the need to plant additional trees. Trees may not be cut down in this strip without site plan approval.</p> <p>All landscaping shall be maintained in a healthy growing condition, neat and orderly in appearance, and free of refuse and debris. All plantings shall be arranged and maintained so as to not obscure the vision of traffic.</p>		



# NORTHAMPTON CODE

ENTRANCEWAY BUSINESS DISTRICT (EB)						
Allowed Uses (by right unless otherwise noted) -any mix or their accessory uses/structures, including common drives	If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)	If checked, special permit approval required by designated board	Dimensions (same for all uses)	Landscaping (same for all uses)	Minimum Parking (same for all uses)	Building/ Site Design (applies to all façade and roof changes)
Reuse of an historic educational or religious building for any residential use on the ground floor or any other commercial use not otherwise allowed in the district, provided that such use is within the footprint of the existing building. The existing building may be expanded to accommodate elevators and stairwells, provided that all historically contributing portions of the building are retained and covered with an historic preservation restriction granted to the City of Northampton in a form acceptable to the Planning Board, with input from the Historical Commission, as preserving the key character-defining features visible from the road (and not necessarily meeting federal or state preservation standards for the entire building). Portions of the building that are not part of the original architecture of the building and which do not contribute to the historical or architectural significance of the building as determined by the Planning Board, with input from the Historical Commission, may be demolished.	✓					

# ZONING

## 350 Attachment 12

City of Northampton  
Table of Use, Dimensional and Density Regulations

HIGHWAY BUSINESS DISTRICT (HB)						
Allowed Uses (by right unless otherwise noted) - any mix or their accessory uses/structures, including common drives	If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)	If checked, special permit approval required by designated board	Dimensions (same for all uses)	Landscaping (same for all uses)	Minimum Parking (same for all uses)	Building Design (same for all uses)
All retail, wholesale and business sales and supply of goods and services (retail above 90,000 square feet not allowed)			Lot size = 0	See Design Standards below for required treatment for curb to developed area	0	See standards below. Applicable for all projects that trigger site plan review.
Office			Frontage = 0		As part of site plan, applicant must show plan for parking	The Planning Board may waive any or all for intermediate site plan projects.
Restaurant, bar, entertainment			Setbacks: Front = 0; measured from beyond a required 10-foot tree belt, 6-foot sidewalk Side = 0 Rear = 0		1 bike rack per 10 parking spaces up to 15 required (indoor or outdoor). Storage must allow locking of bicycles to racks or inside storage containers.	
Drive-through establishments, including restaurants with drive-through windows and other uses with a drive-through function	✓					
Temporary event						
Artist space, trades						
Research and development facilities						
Hotel/Motel						
Health/Athletic club, indoor recreation, membership club operated for profit or nonprofit						
Adult establishments which display live or private booth nudity and adult establishments with adult material. See § 350-10.13. No portion of such use shall be less than 500 feet from any church/house of worship, day-care center, park, playground, school, residence or other adult establishment	✓	✓ Planning Board	Minimum height = 20 feet Maximum height = 65 feet			
Outdoor commercial recreation use	✓		Open space: see landscape/screening requirements			
Residential use above the first floor, home office/occupation			Width/Depth = 0			
Commercial or public parking facility or the addition of 6 or more parking spaces	✓					
Single or multimodal passenger terminal						
Municipal facility						
Warehousing/Commercial storage as a principal use						
Manufacturing, motor freight terminal and warehousing associated with adjacent commercial and industrial uses	✓					
Facilities for essential services						
Veterinary hospital in which all animals are kept inside permanent buildings						
Automotive repair (not junkyard) or service with or without convenience commercial	✓					

# NORTHAMPTON CODE

<b>HIGHWAY BUSINESS DISTRICT (HB)</b>						
<b>Allowed Uses (by right unless otherwise noted) - any mix or their accessory uses/structures, including common drives</b>	<b>If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)</b>	<b>If checked, special permit approval required by designated board</b>	<b>Dimensions (same for all uses)</b>	<b>Landscaping (same for all uses)</b>	<b>Minimum Parking (same for all uses)</b>	<b>Building Design (same for all uses)</b>
Telecommunication antennas on existing towers or other structures which do not require the construction of a new tower (in accordance with § 350-10.9)	✓					
New telecommunications structures/facilities (in accordance with §§ 350-2.1 and 350-10.9)	✓	✓ Planning Board				
New commercial structures or substantial improvements in FP, meeting all requirements under the State Building Code, Wetlands Protection Act, and City ordinances	✓					
Educational, religious use, day-care, school-aged child-care program (MGL c. 28A, § 9), family day care (with registration with Building Commissioner), historical association and nonprofit museum (residence of a caretaker must be above first floor)						
Agricultural uses						
Indoor junk cars, motor vehicle accessories, scrap metal. See § 350-8.8L.	✓					
Private utility, substation, or similar facility or building	✓					
Storage of a fluid other than water (as principal use)	✓					
More than one curb cut (>1 existing may remain unless change of use triggers site plan)	✓	✓ Planning Board				
Access to parking over residential lot; see § 350-8.9	✓	✓ Planning Board			(See above.)	

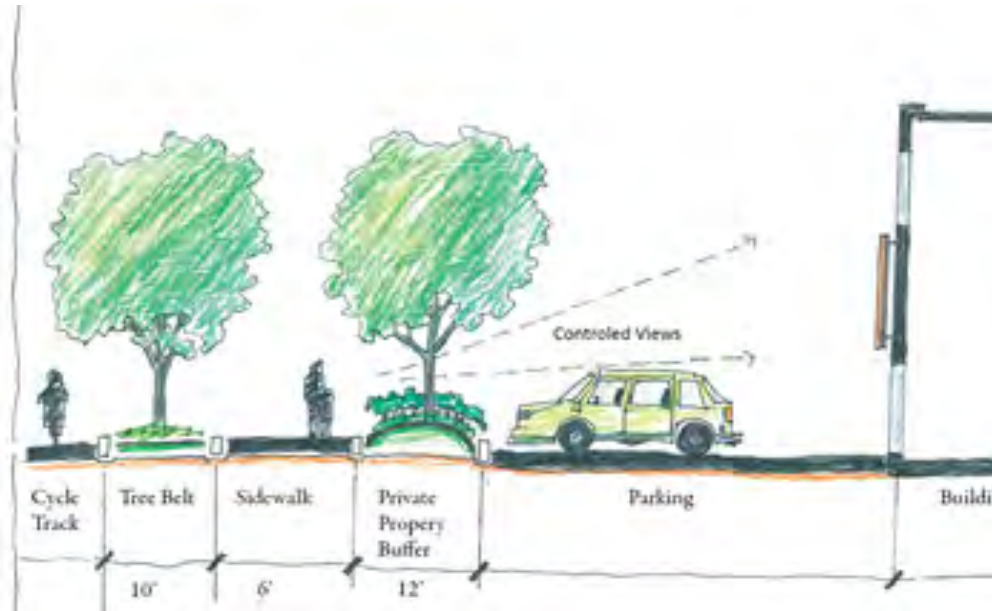
# ZONING

HIGHWAY BUSINESS DISTRICT (HB)						
Allowed Uses (by right unless otherwise noted) - any mix or their accessory uses/structures, including common drives	If checked, site plan approval required by Planning Board See § 350-11.1 (new construction of 2,000+ triggers site plan)	If checked, special permit approval required by designated board	Dimensions (same for all uses)	Landscaping (same for all uses)	Minimum Parking (same for all uses)	Building Design (same for all uses)
Reuse of an historic educational or religious building for any residential use on the ground floor or any other commercial use not otherwise allowed in the district, provided that such use is within the footprint of the existing building. The existing building may be expanded to accommodate elevators and stairwells, provided that all historically contributing portions of the building are retained and covered with an historic preservation restriction granted to the City of Northampton in a form acceptable to the Planning Board, with input from the Historical Commission, as preserving the key character-defining features visible from the road (and not necessarily meeting federal or state preservation standards for the entire building). Portions of the building that are not part of the original architecture of the building and which do not contribute to the historical or architectural significance of the building as determined by the Planning Board, with input from the Historical Commission, may be demolished.	✓					



# HIGHWAY BUSINESS DISTRICT

## LANDSCAPING STANDARDS



### 1. TREE BELT (10' DEPTH MIN.)

A Tree Belt shall be established between the curb and sidewalk. Within the treebelt, shade trees shall be planted at 1 per 25' of entire street frontage unless otherwise approved by Planning Board. Shall be 2.5" caliper upon planting and 20'-30' minimum height at maturity. Trees may be limbed up to a maximum of 5' from the finished grade at planting, 10' upon maturity.

### 2. FRONT BUFFER PLANTING (12' DEPTH MIN.)

Dense landscaping is required between the sidewalk and the first row of parking or building that does not abut the sidewalk. Planted berms 3' in height may be incorporated as a mechanism to create this screen. Turf grasses are only allowed if expressly permitted by Planning Board. This buffer shall consist of:

- A. Shade trees (same standard as tree belt).
- B. Berms or evergreen shrubs min. 3' in height shall be located along the edge of the parking field to screen at minimum upon planting the grills of parked cars.
- C. Ornamental grasses, flowers, ground cover, etc up to 5' in height (3' height within 3' of street/driveway corners) shall fill out the remaining 12' buffer strip.
- D. Plants & trees considered invasive to Massachusetts shall not be allowed.
- E. A majority of the plants shall be native. The remainder may be either native plants or noncompeting exotic species. Trees shall be selected from the City of Northampton's tree list approved by Planning Board <http://www.northamptonma.gov/planbd/>. Noninvasive existing, preserved plants shall be counted toward these requirements.

## LANDSCAPING STANDARDS (CONTINUED)



*(Buffer strip to include combination of trees and shrubs with or without berm)*

### 3. SITE/PARKING LOT LANDSCAPING

See Also 350 - 8.9 for additional landscaping requirements in parking lots.

Landscaped islands constructed to meet requirements of §350-8.9 shall include the following as part of meeting the 1 shade tree per:15 parking space tree planting:

- A. 1 shade per 15 parking spaces sized 2.5" caliper upon planting.
- B. Shrubs, ground cover, grasses, flowers ranging up to 3' in height.
- C. Islands shall primarily contain vegetation and/or sidewalk. Mulch, stone, etc only used as secondary material. Engineered rain gardens or other green infrastructure elements are strongly encouraged for these islands.

### 4. BUFFER TO RESIDENTIAL DISTRICTS

A 30' wide buffer strip shall be planted along the boundary with any residentially zoned lot. It shall contain a screen of plantings of vertical habit in the center of the strip not less than three feet in width and six feet in height at the time of occupancy of such lot. Individual shrubs shall be planted not more than five feet on center, and individual trees thereafter shall be maintained by the owner or occupants so as to maintain a visually impervious screen (upon planting) year round. At least 50% of the plantings shall be evenly spaced.

The buffer may be reduced to a min. 20' width if the Planning Board finds that a sight-impervious wall or fence will be erected of appropriate materials and sufficient height to screen abutting properties and will provide at least as much mitigation as the vegetated barrier described above.

Existing trees and ground cover should be preserved in this strip, reducing the need to plant additional trees. Trees may not be cut down in this strip without site plan approval. All landscaping shall be maintained in a healthy growing condition, neat and orderly in appearance, and free of refuse and debris. All plantings shall be arranged and maintained so as to not obscure the vision of traffic.

# HIGHWAY BUSINESS DISTRICT

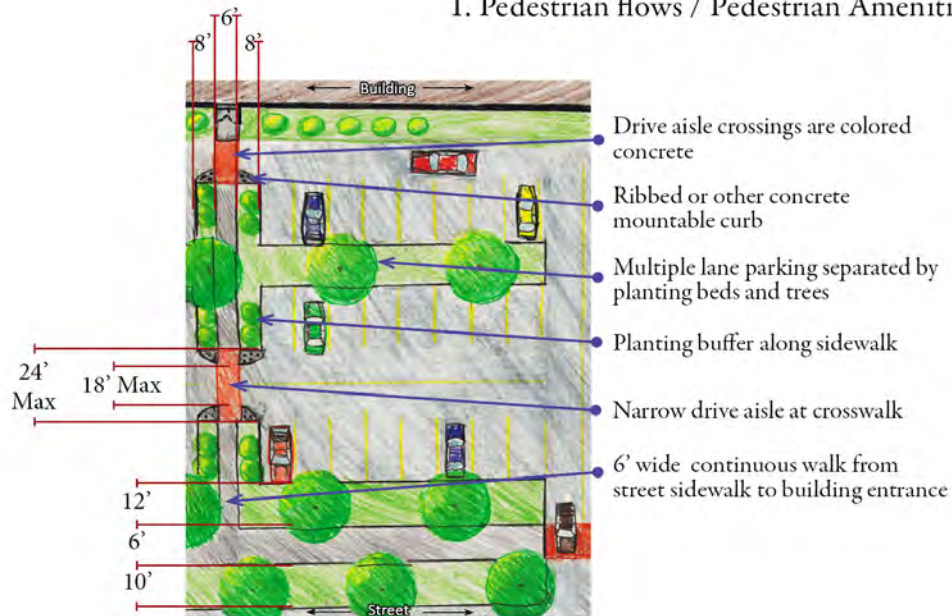
## BUILDING & SITE DESIGN STANDARDS

Projects must meet all standards. Because there is often more than one way to meet a standard, the Planning Board may grant other means of meeting design standards if it finds that an alternative site planning and building design approach addresses the standard equally well or better. In particular, alternatives may apply to buildings built to the sidewalk.

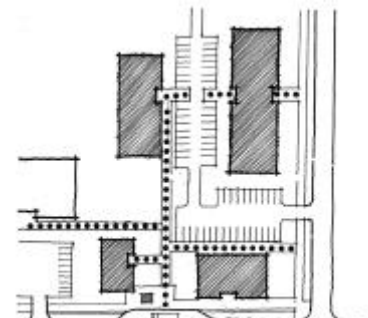
### 1. PEDESTRIAN FLOWS/PEDESTRIAN AMENITIES

Sidewalks and internal pedestrian circulation systems provide user-friendly pedestrian access as well as pedestrian safety, shelter, and convenience.

#### 1. Pedestrian flows / Pedestrian Amenities :A

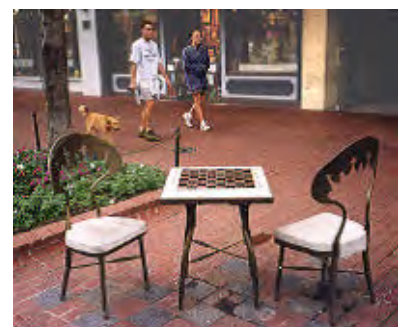


- A. At least one 6' wide principal sidewalk leading either from the street or public bike path to the principal structure on site shall be provided. The sidewalk shall only be interrupted by a maximum 18' wide drive aisle crossing. Such crossings shall be designed to be clearly visible and to slow vehicles, such as with raised crossings or cobbled crossings of different colors and/or texture. This principal pedestrian access shall be flanked on either side by a minimum 8' continuous landscaped buffer, broken only for drive aisles. Adjoining landscaped areas shall include trees, shrubs, benches, flower beds, ground covers, or other such materials. This buffer may be reduced to 6' on either side if an 8' wide sidewalk is constructed or if the buffer is an engineered rain garden or other LID system as determined by Office of Planning & Development.
- B. Continuous internal pedestrian walkways, no less than six feet (6') in width, shall be provided from the principal sidewalk to the main customer entrance of all other buildings on the site.
- C. Walkways shall connect focal points of pedestrian activity, such as but not limited to transit stops, street crossings, building and store entry points.



# 1 .PEDESTRIAN FLOWS/PEDESTRIAN AMENITIES (CONTINUED)

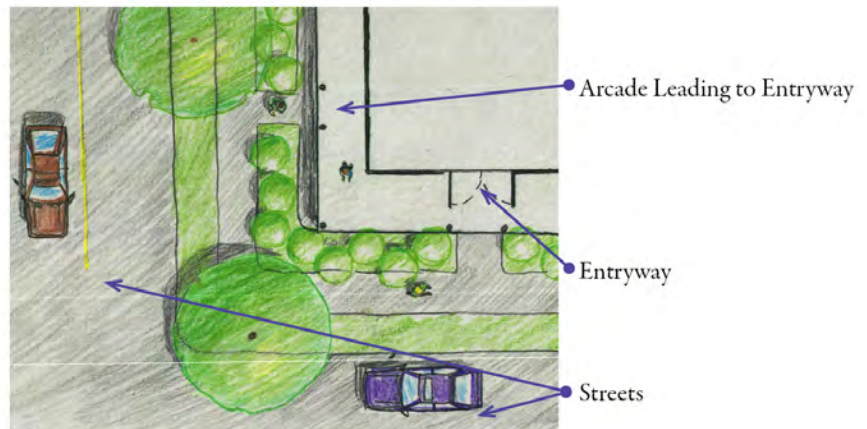
- D. Sidewalks, no less than eight feet in width, shall be provided along the full length of the building along any facade featuring a customer entrance, and along any facade abutting public parking areas.
- E. Sidewalks shall be anchored by special design features such as towers, arcades, porticos, pedestrian light fixtures, bollards, planter walls, and other architectural elements that define circulation ways and outdoor spaces providing at least two of the following:
- i. outdoor benches or seating
  - ii. transit stop
  - iii. window shopping walkway
  - iv. outdoor playground
  - v. kiosks
  - vi. water feature
  - vii. clock tower, or other such deliberately shaped area and/or a focal feature or amenity that enhances such community and public spaces. Any such areas shall have direct access to the public sidewalk





## 2. ENTRANCES AND ENTRYWAYS

Entryway design elements and variations give orientation and definition to the building(s).



The street/buffer oriented facades of any building abutting the street/front buffer shall have at least one customer entrance on that façade or a pedestrian arcade that brings pedestrians around the building to the entrance.

Each building and/or each store within a building must have at least one clearly defined, highly visible customer entrance, featuring no fewer than three of the following:

- canopies or porticos
- overhangs
- recesses/projections
- arcades
- raised corniced parapets over the door,
- peaked roof forms
- arches
- outdoor patios
- display windows
- architectural details which are integrated into the building structure (such as tile work and moldings), or integral planters or wing walls that incorporate landscaped areas and/or places for sitting.

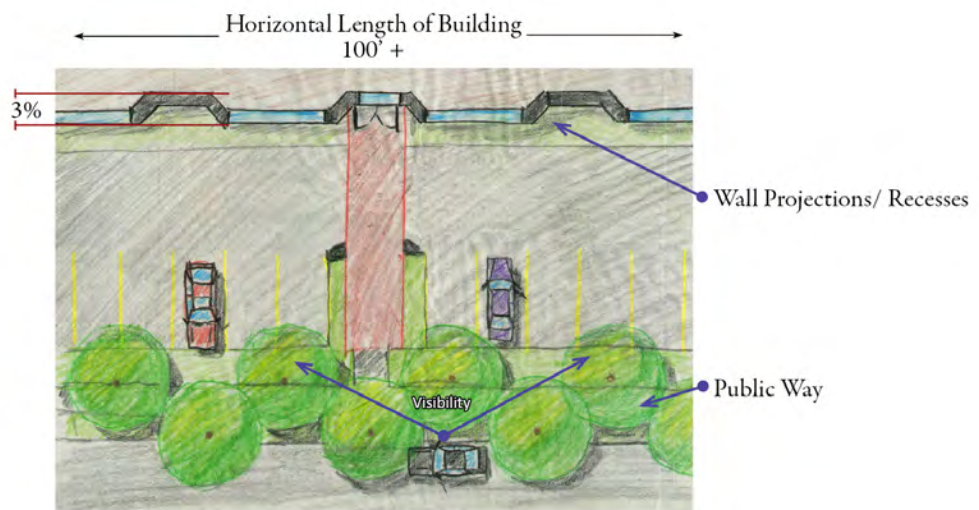


### 3. FACADES AND EXTERIOR WALLS

Walls and facades shall have human-scale architectural features and patterns. The elements shall be integral parts of the building fabric, and not superficially applied trim or graphics, or paint.

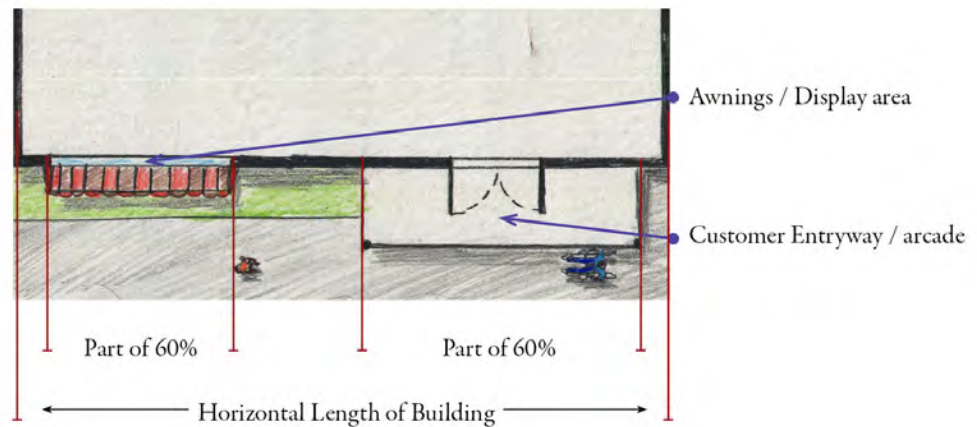
#### Patterns:

- A. Facades must include a repeating pattern that shall include color, texture, and materials change. At least one of these elements shall repeat horizontally. All elements shall repeat at intervals of no more than 30 feet, either horizontally or vertically. Patterns can include architectural or structural bays through a change in plane no less than 12 inches in width, such as an offset, reveal, or projecting rib.



- B. Facades visible from a public way greater than 100 feet in length, measured horizontally, shall:
- Incorporate wall plane projections or recesses having a depth of at least 3% of the length of the facade so that no uninterrupted facade shall exceed 100 horizontal feet; or
  - Incorporate other types of articulation, facades, displays, or texture which meets the above standard without forcing structural changes to the core building.

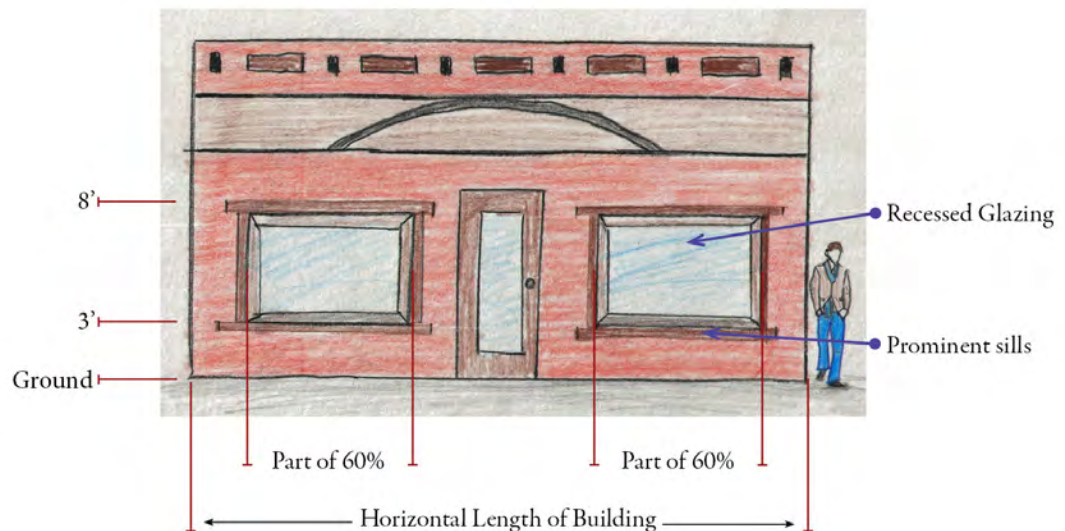
### 3. FACADES AND EXTERIOR WALLS (CONTINUED)



- C. Ground floor facades that face public streets shall have arcades, display windows, entry areas, awnings, or other such features along no less than 60% of their horizontal length.

#### Glazing:

- D. The street level facade built at the public sidewalk shall be transparent between the height of three feet and eight feet above the walkway grade for no less than 60% of the horizontal length of the building facade. Buildings setback beyond the required 12' buffer may have 40% glazing in this area or less if the



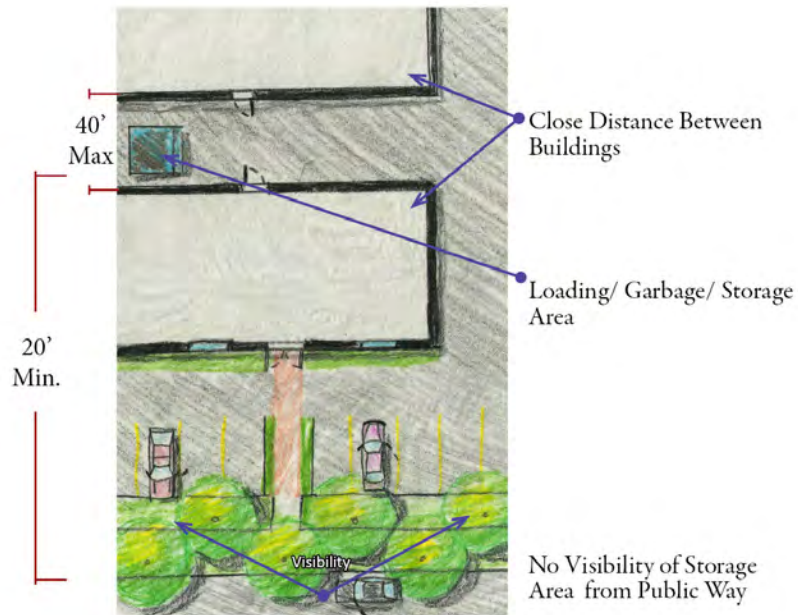
Planning Board determines that other features accomplish similar building transparency or articulation.

- E. Windows shall be recessed and should include visually prominent sills, shutters, or other such forms of framing.

## 4. ROOFS AND EAVES

Variations in rooflines and roof features should be used to add variety to, and reduce the massive scale of, large buildings and shall have no less than two of the following features:

- A. Parapets concealing flat roofs and rooftop equipment such as HVAC units from public view. The average height of such parapets shall not exceed 15% of the height of the supporting wall, and such parapets shall not at any point exceed 1/3 of the height of the supporting wall. Such parapets shall feature three-dimensional cornice treatment.



- B. Overhanging eaves, extending no less than three feet past the supporting walls.
- C. Sloping roofs that do not exceed the average height of the supporting walls, with an average slope greater than or equal to one foot of vertical rise for every three feet of horizontal run and less than or equal to one foot of vertical rise for every one foot of horizontal run.
- D. Three or more roof slope planes.

## 5. MATERIALS

Predominant exterior building materials shall be durable, high quality materials and include, but not be limited to, brick, wood, native stone, tinted, textured, and concrete masonry units.

Facade colors shall be low reflectance unless otherwise approved by the Planning Board.



## 6. LOADING, STORAGE, HVAC EQUIPMENT, GARBAGE COLLECTION REFUSE

Unless otherwise approved by the Planning Board areas for outdoor storage, truck parking, trash collection or compaction, loading, or other such uses shall not be visible from abutting streets nor be located within 20 feet of any street, sidewalk or internal pedestrian way. Such areas shall be screened from streets, recessed or enclosed with appropriate screening materials. Such spaces may be between buildings, where such buildings are not more than 40 feet apart, or on those sides of buildings that do not have customer entrances.

Areas for the storage and sale of seasonal inventory shall be permanently defined and screened with walls and/or fences.

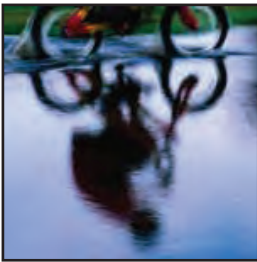
Architectural and landscaping features should mitigate the impacts of rear and sides of buildings which otherwise present a view of blank walls, loading areas, storage areas, HVAC units, garbage receptacles, and other such features.



# City of Northampton

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## Bicycle Parking Guide



## DEVELOPMENT REQUIREMENTS

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For new development and redevelopment projects, bicycle parking must be provided in accordance with zoning requirements. Locations and types of bike parking must be shown in building site plans and approved by the Planning Board. Ensure that your bike racks are approved and well used by following these guidelines.

### Northampton's Bicycle Storage Requirements

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The following is a summary of the Northampton's Zoning requirements:

#### 350–8.11. Bicycle Storage

“Except in the Central Business District, bicycle racks or other provision for indoor or outdoor storage of bicycles must be provided for all uses for which the zoning requires 10 or more parking spaces. Storage must allow for the locking of bicycles to racks or inside of storage containers.

## WHY IS BIKE PARKING IMPORTANT?

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The City of Northampton promotes bicycling as a healthy, environmentally friendly way of getting around Northampton and the Pioneer Valley. Northampton is well suited for bicycling and more people are using their bikes every day for commuting, shopping, and general transportation. Enhancing and promoting sustainable transportation is a cornerstone of Northampton's climate protection policies.



Providing bicycle parking encourages people to use their bicycles as transportation. People are more likely to use a bike if they are confident that they will find convenient and secure parking at their destination.



Providing a designated area for bike parking gives a more orderly appearance to a building and prevents cyclists from locking their bikes to unacceptable fixtures, such as trees, benches, or railings. However, if a bike rack appears insecure, does not fit bikes well, or is in the wrong location, cyclists will not use it.

## Getting it Right

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When installing bicycle parking, it is important to consider the following:

- Location of building entrance(s) that the cyclists will be using
- Quantity of bikes (current or anticipated) parking at the site
- Amount of time that bikes will be parked there (a few hours versus all day)

## Acceptable Bike Racks

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There are multiple designs for bicycle racks produced by many manufacturers.

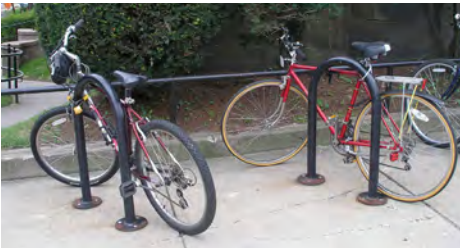
Bike racks can be purchased as single units, with a capacity of 2 bikes (one on each side), or as multiple units, with a larger capacity. Only some designs have proven successful.





## Features of a good bike rack include:

- Stable structure and permanent foundation that is securely anchored in the ground
- Support for an upright bicycle by its frame horizontally in **two (2)** or more places
- Design that prevents the bicycle from tipping over
- Ability to support a variety of bicycle sizes and frame shapes
- Space to secure the frame and one or both wheels to the rack
- Keeps bike wheels on the ground



*This is an example of a good bike rack in Northampton.*



## Unacceptable Bike Racks

Bicycle racks must NOT:

- Support the bicycle at only one point
- Allow the bicycle to fall, which can damage the bike and block pedestrian right-of-way
- Have sharp edges, which can be hazardous to the visually impaired
- Support the bicycle by one wheel
- Connect to each other with a bar across the top (which blocks certain handlebars and baskets)
- Suspend any part of the bike in the air





The rack should be easily and independently accessible and accommodating for a bicycle at least seven feet in length and two feet wide while still allowing access to each space when parking area is full. Rack units that are (installed) closer than 36 inches together prevent cyclists from utilizing the racks to their fullest capacity.

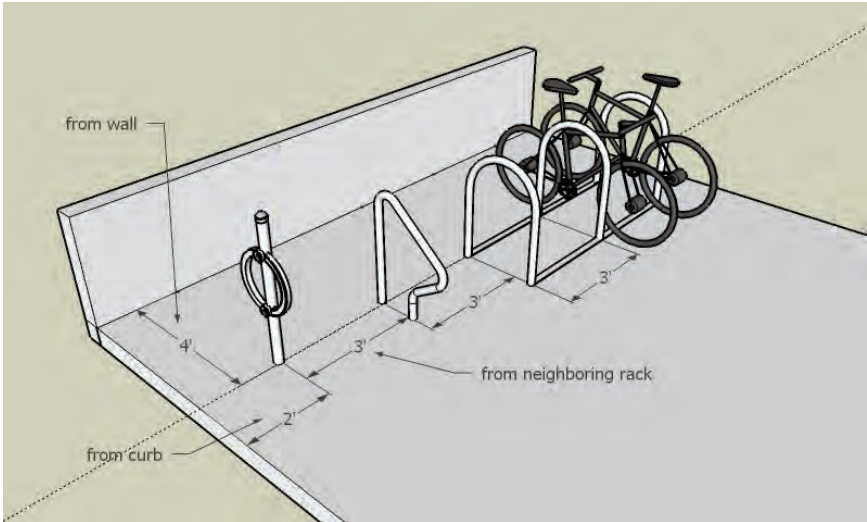
*Northampton provides public bicycle racks, so please refrain from attaching one's bike to trees, poles, etc.*



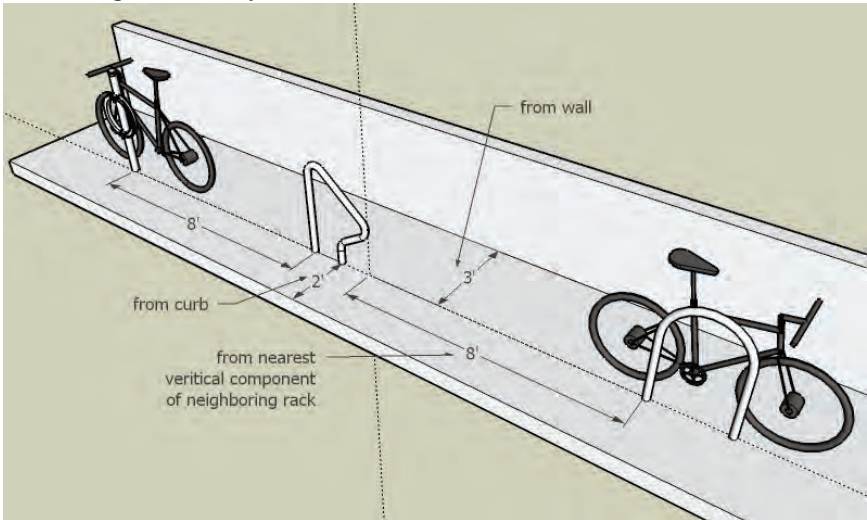
**DO NOT USE** racks that only provide one point of support or only accommodate certain bicycle shapes.

## Dimensions

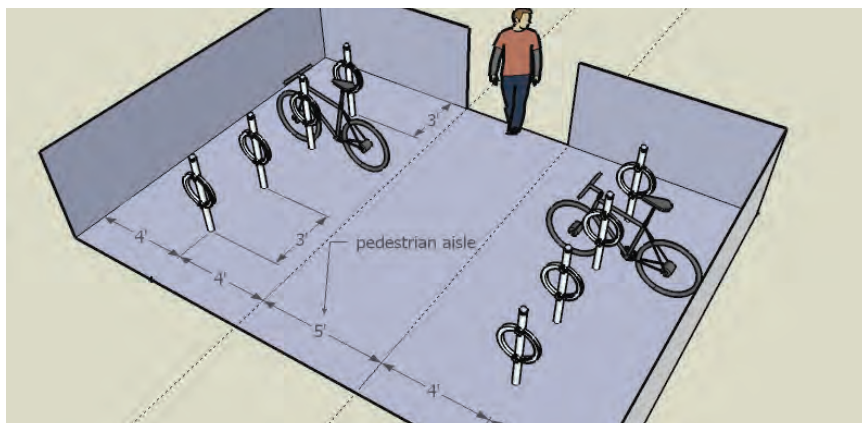
Distances between the bike rack and objects nearby vary depending on the context and the type of rack. Some racks have only one vertical component, such as the pole and ring rack, whereas others have two, such as the inverted-U rack. Measurements must be taken from the nearest vertical component of the rack to the object.



*Racks aligned side by side*



*Racks aligned end to end*



*Enclosed rack area with pedestrian aisle*

### **Distance to other Racks:**

- Rack units aligned parallel to each other (side by side) must be at least 36 inches apart. This includes racks that are sold as multiple rack units attached together.
- Rack units aligned end to end must be at least 96 inches apart.

### **Distance from Wall:**

- Rack units placed perpendicular to a wall must be at least 48 inches from the wall to the nearest vertical component of the rack.
- Rack units placed parallel to a wall must be at least 36 inches from the rack to the wall.

### **Distance from a Curb:**

- Rack units placed perpendicular to the curb must be at least 48 inches from the curb to the nearest vertical component of the rack.
- Rack units placed parallel to the curb must be at least 24 inches from the curb to the rack.

### **Distance from a Pedestrian Aisle:**

- Rack units perpendicular to a pedestrian aisle must be at least 48 inches from the rack to the edge of the aisle, and the aisle should be at least 60 inches wide.

### **Other Distances:**

- Racks should be no more than 30 feet from the building entrance that they serve.
- Allow at least 4 feet for safe pedestrian clearance.
- 14 feet from curbside fire hydrant.
- 6 feet from a wall fire hydrant.

## Choosing a Location

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Location is an extremely important factor in the utility of a bike rack. The rack should be located in a safe and accessible space.

### Safe locations are:

- In full view, maximizing visibility and minimizing vandalism, near pedestrian traffic, windows, and/or well-lit areas
- Under cover, to protect bikes from inclement weather
- Far enough away from the street or parking spaces so that bikes will not be damaged by automobiles, on a setback if possible
- Not obstructing pedestrian traffic



### Accessible locations are:

- Between the road/path that cyclists use and the entrance of the building
- Not up stairs or large curbs, preferably near handicap accessible ramps
- Spacious enough to allow room for bikes of all shapes and sizes to use the racks to their fullest capacity.
- Close to the main entrance that cyclists use for the building

Private developers and property may not install racks in the public right of way without formal permission from the City.



*Weather protected bicycle parking is desirable at locations where bikes may be parked for extended periods.*



## Short-Term Versus Long-Term Parking

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Another factor in bike rack choice is the amount of time that each cyclist is expected to park at the rack. Bike parking for a commercial area, such as a restaurant or store, is considered short-term, as cyclists are expected to park there for a couple of hours (at the most). The main concerns for short-term bike parking are close proximity to the building entrance and visibility.

For long-term parking, such as at transit stations, workplaces, or residential areas, where cyclists may park all day or overnight, it is better for bikes to be parked in lockers, covered storage areas, parking garages or indoors. Safety is the main concern with long-term parking. Bikes need to be sheltered from inclement weather, under cover or in a locker. To prevent vandalism, racks should be within view of any parking attendant, security guard, or transit worker.



*Although weather-protected bicycle parking is not currently available in Northampton, the City is interested in providing it in the future. Weather protected bicycle parking is appealing to cyclists and is twice as likely to be used as unprotected parking options. Bicycle parking lockers housed inside parking garages is a desirable choice for cyclists.*

## Parking Garages

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Northampton supplies an employee bicycle room in its parking garage for those who work for the city. When new parking garages are built, we encourage them to include bicycle storage facilities.

## Locking

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The rack must allow for the convenient securing of the bicycle frame and both wheels using a chain, cable or U- lock. Chains and cables vary in length from 2' to 6'. U-locks, which cyclists frequently use to attach their frame and one wheel to a rack, are usually between 3.25" and 5" wide and vary in length from 5.5" to 12".



Chain Lock



U-Lock

The locking surface on the rack must be thin enough for cyclists to use these popular locking mechanisms, yet thick enough not to be cut by hand tools, such as bolt cutters, pipe cutters, pry bars and wrenches.

## Brochure Credits:

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Much of this brochure was based on a similar brochure that Cambridge made. Thanks very much to Cambridge for allowing us to use their format and many of their text and pictures.

## Bike Rack Manufacturers

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There are many bicycle rack manufacturers who can supply high quality racks that meet Northampton specifications. The following bicycle rack manufacturers meet the City of Northampton's specifications:

- Bike Lid (<http://www.bikelid.com>)
- Creative Pipe (<http://www.creativepipe.com>)



- Cycle Safe (<http://www.cycle-safe.com>)
- DERO Bike Racks (<http://www.dero.com>)
- Function First Bike Security (<http://www.bikerack.com>)
- Huntco Supply, Inc. (<http://www.huntco.com>)

Custom designs and “artistic” racks can also be used, provided they meet the performance criteria for bicycle racks.

Images on this page show examples of such racks.

Northampton staff are always available to assist with reviewing the performance standards for bicycle racks, including custom designs, as well as rack selection and placement; please feel free to contact us at <http://www.northamptonma.gov/>





## Photo Credits:

With appreciation to the following individuals and companies for use of their photographs: Dero Bike Rack Company (pp. 4, 9, 11); Susan Cooper (p. 11); John Luton (p. 8); Norman Cox (p. 10); Mark Horowitz (p. 9); Shannon Simms (pp. 5, 10); Jessica Zdeb (p. 3)

## City of Northampton

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 Fall 2008



## **Appendix 2.2.2: Selected City of Northampton Subdivision Regulations**

### **§290-2 Purpose**

A. The Rules and Regulations Governing the Subdivision of Land, City of Northampton, Massachusetts, have been enacted for the purpose of protecting the safety, convenience and welfare of the inhabitants of Northampton by regulating the laying out and construction of ways in subdivisions providing access to the several lots therein, but which have not become public ways, and ensuring sanitary conditions in subdivisions, and in proper cases, parks and open areas. The powers of the Planning Board and the Board of Appeals under these rules and regulations shall be exercised with due regard for the provision of adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel; for lessening congestion on such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic, and other emergencies; for ensuring compliance with the Northampton Zoning Ordinance;<sup>11</sup> for securing adequate provision for water, sewerage, drainage, underground utility services, fire, police, streetlighting, and other similar municipal equipment, and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the City and with the ways in neighboring subdivisions.

B. It is the intent of these rules and regulations that any subdivision plan filed with the Planning Board shall receive the approval of such Board if said plan conforms to the recommendation of the Board of Health and to these rules and regulations; provided, however, that the Planning Board may, when appropriate, waive, as provided for in § 290-5, such portions of these rules and regulations as is deemed advisable.

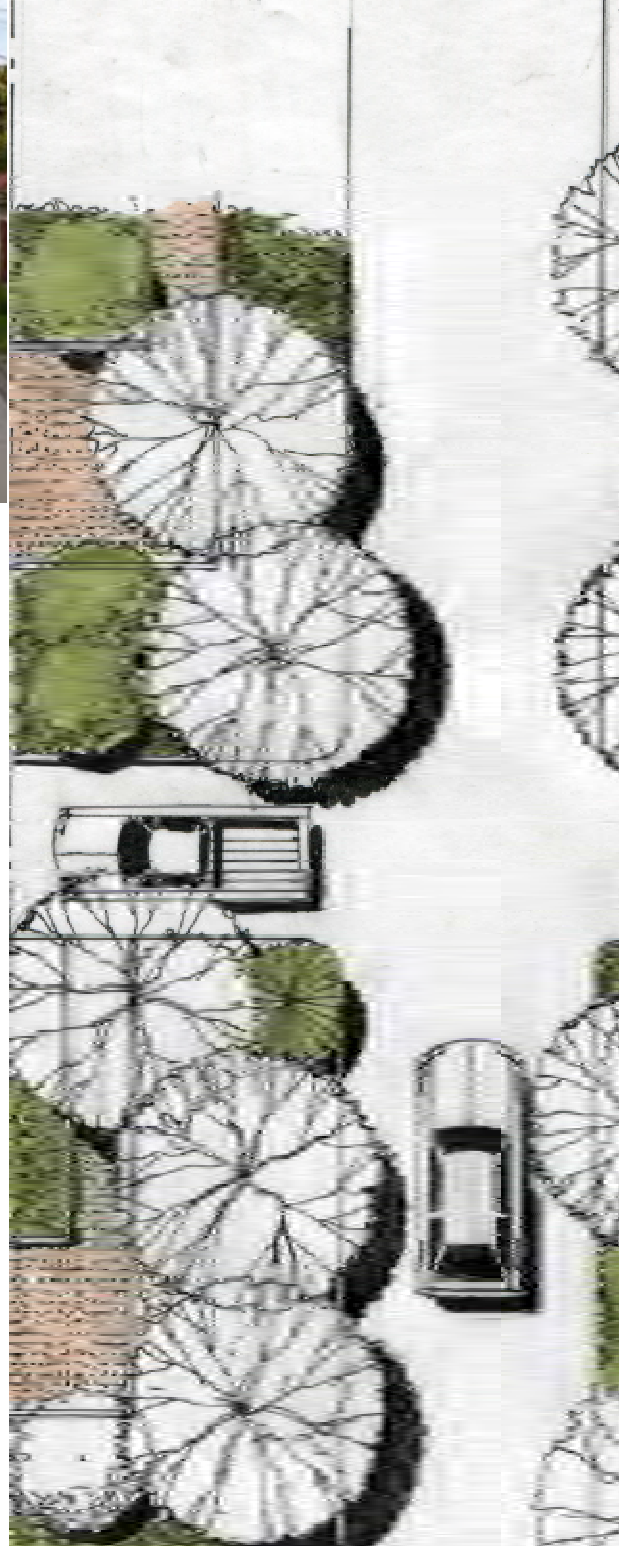
C. These rules also provide the technical standards for compliance with certain infrastructure where specified within Chapter 350, Zoning.

### **§290-4 Terms defined**

## **SUBDIVISION STREET TYPES**

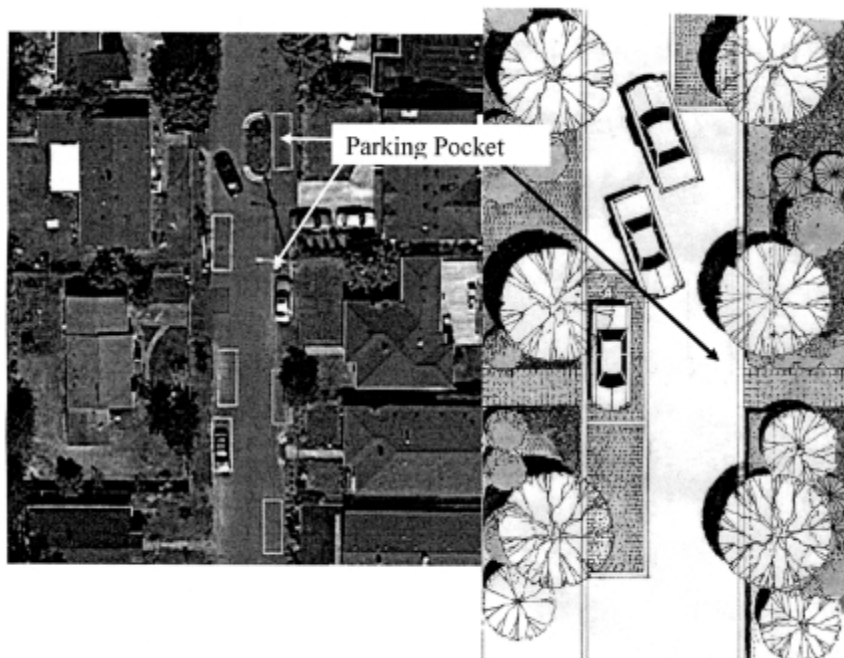
### **A. PRIVATE ALLEY**

A narrow, one-way vehicular and pedestrian route that is interspersed with "green infrastructure" to manage stormwater runoff. Alleys may not be accepted as City streets and do not create legal street frontage. Curbing is limited to sections of alleys where they intersect with streets that are not alleys. Contrasting materials are used to regulate speeds and to address stormwater.



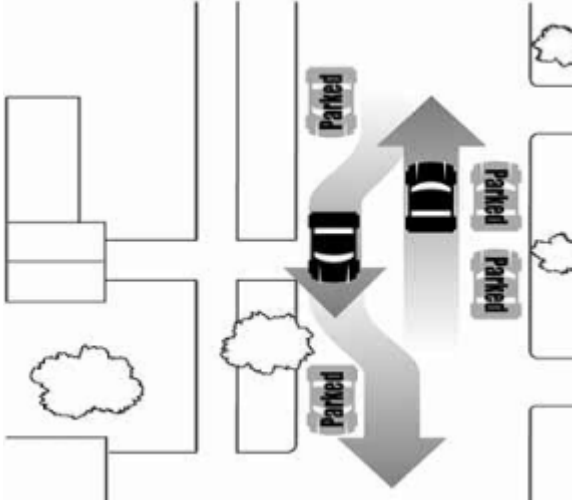
B. RESIDENTIAL SHARED STREET

A private, narrow two-way street designed for pedestrians and vehicles traveling at slow enough speeds so as to share the same space. Typically parking blocks, street furniture such as benches, trash bins, planter boxes, bollards placed on alternating sides of the street force slower vehicular speeds to enhance pedestrian safety. No sidewalk or curbing is required, and rain gardens, bioretention swales or other on-site infiltration mechanisms are used to manage stormwater. Such streets are appropriate as neighborhood connecting streets between two through streets, but not for main through streets. Shared streets may be used to create legal street frontage but may not become public ways.



### C. RESIDENTIAL YIELD STREET

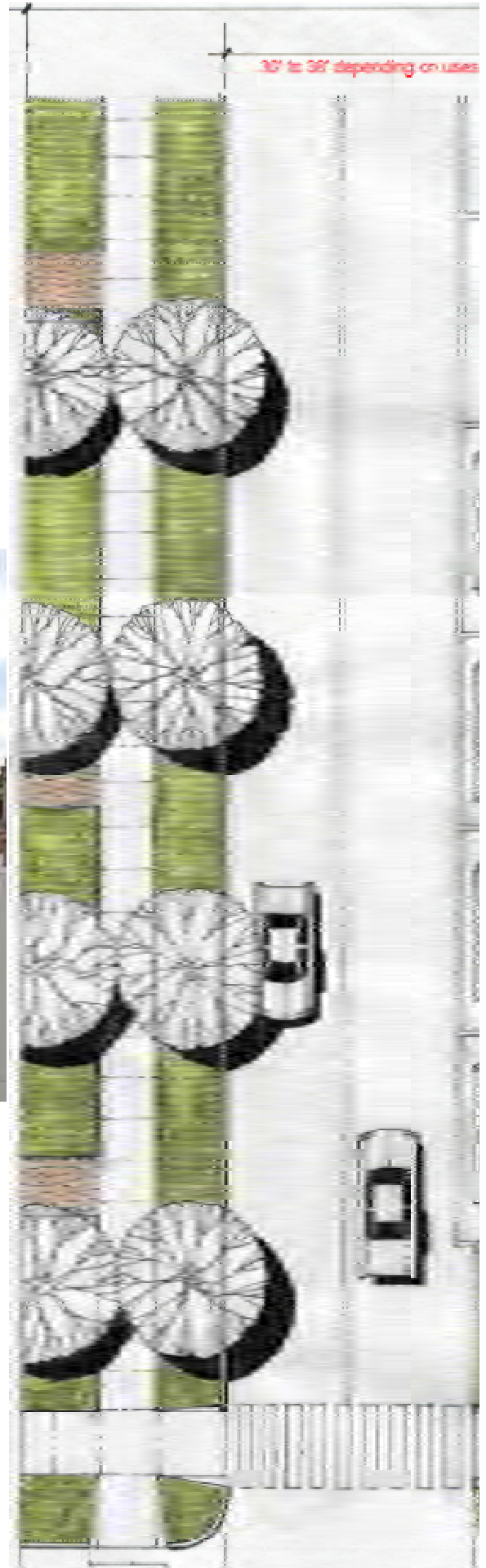
A low-speed two-way street where sidewalk infrastructure is separated from vehicular traffic. Low traffic speeds are designed into the street through creation of alternating on-street parking "pockets." Bi-directional traffic flow yields to oncoming traffic as the travel lane is shared space for each direction. Intersections have crosswalks with curb extensions to narrow pedestrian crossing widths.



#### D. MIXED USE/COMMERCIAL STREET

A low-speed two-way street where sidewalk infrastructure is separated from vehicular traffic. Slower vehicular speeds are designed into the street through creation of on-street parking with curb extensions at intersections which are created to shorten pedestrian crossing distances and slow speed for turning vehicles. The tree belt also serves as a street furnishing zone.





§290-23 Additional subdivision submittal requirements

In addition to the above plans, submission of definitive plans must include the following:

E. Traffic study; traffic analysis and mitigation. The applicant shall submit a traffic analysis using the most current edition of the Trip Generation Manual published by trip generation standards by the Institute of Transportation Engineers. Explain traffic impacts, types of streets, opportunity for public transit access, impacts on vehicle, pedestrian, and bicycle circulation.

- (1) Estimated daily and peak-hour vehicle trips generated by the proposed use, traffic patterns for vehicles and pedestrians showing adequate access to and from the site, and adequate vehicular and pedestrian circulation within the site. Previously generated data may be used; however, it cannot be more than two years old.
- (2) Traffic flow patterns at the site, including entrances and egresses and curb cuts on site and within 200 feet of the site.
- (3) A plan to minimize traffic safety impacts of the proposed project through such means as physical design and layout concepts, promoting use of public transit or van- or car-pooling, or other appropriate means. This plan shall evaluate alternative mitigation methods to reduce traffic by 35%, including:
  - (a) Public transit, van- and car-pool incentive programs, including parking facilities and weather-protected transit shelters.
  - (b) Encouraging pedestrian and bicycle access to the site.
  - (c) Provision of integrated land uses, including on-site services, retail, and housing.
- (4) A detailed assessment of the traffic safety impacts of the proposed project or use on the carrying capacity of any adjacent highway or road, including the projected number of motor vehicle trips to enter or depart from the site for daily-hour and peak-hour traffic levels, road capacities, and impacts on intersections. Said assessment may be based on the proposed mitigation [in the plan required by Subsection **E(3)** above]. Such analysis shall include incremental impacts at all significant or constrained intersections where such impacts may be measurable. Such analysis shall also include a mitigation plan, as necessary, to mitigate such impacts, including construction of improvements, payment in-lieu of the project's proportional share of such improvements, or other "soft" solutions.
- (5) An overall network analysis showing how the project distributes traffic and enhances the flow of the existing network.
- (6) An interior traffic and pedestrian circulation plan designed to minimize conflicts and safety problems.
- (7) Adequate pedestrian access, including provisions for sidewalks to provide access to adjacent properties and between individual businesses within a development.
- (8) Safe provision for school bus stops and, when appropriate, public transit stops.

(9) Demonstrate that the project, including any concurrent road improvements, will not decrease the level of service (LOS) of all area roads or intersections affected by the project below the existing conditions when the project is proposed and shall consider the incremental nature of development and cumulative impacts on the LOS. The project proponent must demonstrate that it has mitigated all cumulative and incremental traffic impacts. If requested by the applicant, the Planning Board may accept in-lieu-of payments to fund a project's proportional share of necessary improvements to mitigate off-site traffic impacts, including provision of public transit and pedestrian or bicycle paths, in lieu of requiring off-site improvements, when it finds that such payments, in conjunction with funds from other projects or sources, will be used to fund improvements to mitigate traffic impacts. The Board may, in its discretion, allow minor drops in LOS when roads have surplus capacity (for example an A LOS might drop to a B without mitigation), but shall still consider incremental and cumulative impacts of traffic impacts. The Board may exempt residential projects that would have equal traffic impacts if they were developed as an as-of-right development without site plan approval and subdivision approval. Provision shall be made for mitigation of all incremental traffic impacts to ensure that facilities are adequate to accommodate such traffic on area roads.

§290-28 Controlling standards

A. Streets, sidewalks, water systems, sanitary sewers, storm drain systems, public and private utilities and other infrastructure shall be constructed in accordance with this chapter and:

- (1) The Massachusetts Department of Transportation (MassDOT) Standard Specifications for Highways and Bridges and its supplements (to be referred hereto as the "Standard Specifications");
- (2) Construction standards (§ 290-29 through § 290-58 below) on the date of the subdivision application (to be referred to hereto as the "construction standards"); and
- (3) The Department of Environmental Protection (DEP) Massachusetts Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas in effect on the date of submission of the subdivision application.

§290-29 Streets and ways

Streets and ways must comply with the following table. The vision is to create streets with as little impervious area as necessary while creating safe environments for all users of the system infrastructure. Street blocks generally should be 250 feet to 500 feet maximum with curbing only where necessary to maintain integrity of the system and safety for its users. Greater widths may be required by the Planning Board when deemed necessary for present and future vehicular traffic.

**Table of Street Requirements**

	Private Residential Shared Street	Private Alley (residential or mixed use). *does not create legal frontage	*only appropriate for connecting street segments and not through streets	Residential Yield Street	Mixed Use, Commercial and Industrial
Right-of-way	NA	NA	60'	70'	
Pavement width	14'	20'	20' within 30' of each intersection; 24' elsewhere	22' within 30' of intersection; otherwise 30' when street serves < 25% retail, service or industrial by ft <sup>2</sup> ; 38' all other	
Limit of dead-end streets, measured along the center line, from the nearest public (non-alley) street that is not itself a dead-end street	500'	500'	500'	500'	
Length of block between 3+ way intersections	400'	500'	500'	500'	
Length of block if broken up at least every 500' by a walking or bicycle trail and connects permanently to protected open space	400'	1,000'	1,000'	1,000'	
Pavement type	Hot mix asphalt with textural changes if intended	Hot mix asphalt with textural changes	Hot mix asphalt	Hot mix asphalt	



**Table of Street Requirements**

	Private Residential or Shared Street	Private Alley (residential or mixed use). *does not create legal frontage	*only appropriate for connecting street segments and not through streets	Residential or Yield Street	Mixed Use, Commercial and Industrial
	as primary pedestrian access				
Pavement depth binder course	Geotextile fabric plus 2.5" asphalt; see Note below for pervious	Geotextile fabric plus 2.5" asphalt; see Note below for pervious	Geotextile fabric plus 2.5" asphalt	Geotextile fabric plus 3" asphalt	
Pavement depth surface course	1.5"; See Note below for pervious	1.5"; See Note below for pervious	1.5"	2"	
Pavement subbase					
Poor to fair soils	24"	24"	24"	24"	
Good to excellent soils	12"	12"	12"	12"	
Vehicle flow	One- or two-way	Two-way	Two-way	Two-way	
Sidewalk (cement concrete only, including where it crosses driveway)	No	No	5' wide, on both sides of the road; if LID, see	6' wide on both sides of the road	

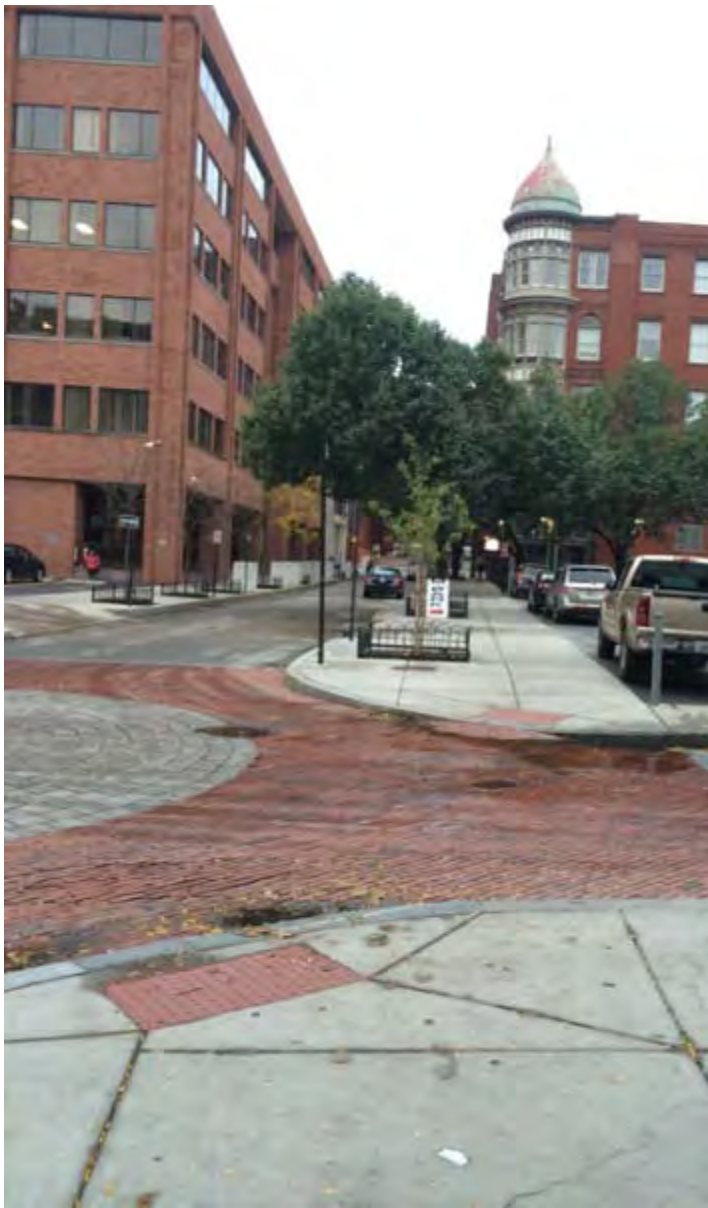
**Table of Street Requirements**

	Private Residential or Shared Street	Private Alley (residential or mixed use). *does not create legal frontage	*only appropriate for connecting street segments and not through streets	Residential or Yield Street	Mixed Use, Commercial and Industrial
				Note	
Sidewalk depth	NA	NA		4"; 6" at driveway crossings	4"; 6" at driveway
Crosswalks (to be located at all street and trail intersections and no other locations)	Raised to elevation of sidewalk or pedestrian path	Raised to elevation of sidewalk or pedestrian path	Raised to elevation of sidewalk	Raised to elevation of sidewalk	Raised to elevation of sidewalk
Crosswalk construction	Thermoplastic ladder pattern unless epoxy approved by Department of Public Works	Thermoplastic ladder pattern unless epoxy approved by Department of Public Works	Thermoplastic ladder pattern unless epoxy approved by Department of Public Works	Thermoplastic ladder pattern unless epoxy approved by Department of Public Works	Thermoplastic ladder pattern unless epoxy approved by Department of Public Works

\*The Planning Board may allow flush granite and mix of materials such as stamped concrete with flush granite to create visual queues and create a specified character.

Table of Street Requirements

	Private Residential or Shared Street		
Private Alley (residential or mixed use). *does not create legal frontage	*only appropriate for connecting street segments and not through streets	Residential or Yield Street	Mixed Use, Commercial and Industrial



**Table of Street Requirements**

	Private Alley (residential or mixed use). *does not create legal frontage	Private Residential Shared Street *only appropriate for connecting street segments and not through streets	Residential Yield Street	Mixed Use, Commercial and Industrial
Shoulders	Not allowed	Not allowed	Bike facilities as necessary for classified arterials	Bicycle facilities as necessary depending upon functional type
Curbs (VB granite only, except on the interior of a cul-de-sac, for LID, or presence of amphibians dictates sloped curb)	30' from each intersection and on sides whenever there are no rain gardens, bioretention areas, or curb cuts	30' from each intersection and on sides whenever there are no rain gardens, bioretention areas, or curb cuts	30' from each intersection and on sides whenever there are no rain gardens, bioretention areas, or curb cuts	30' from each intersection and on sides whenever there are no rain gardens, bioretention areas, or curb cuts
Rain gardens and bioretention	Always	Always	Encouraged	Encouraged
Horizontal alignment (minimum radius of center line)	50'	50'	100'	185'
Stopping sight distance (considering vertical alignment, slopes, and obstructions)	80'	80'	115'	155'

**Table of Street Requirements**

	Private Alley (residential or mixed use). *does not create legal frontage	Private Residential   Shared Street *only appropriate for connecting street segments and not through streets	Residential   Yield Street	Mixed Use, Commercial and Industrial
Grade, maximum	8%	8%	8%	7%
Grade, minimum	0.8%	0.8%	0.8%	0.8%
Intersection angle	90°	90°	90°	90°
Minimum straight center line distance at intersecting streets	30'	30'	30'	40'
Maximum intersection approach grade	6% for 20'	5% for 40'	5% for 40'	4% for 40'
Maximum intersection grade	5%	5%	5%	5%
Required curb return radius (minimum to maximum)	15'	15' to 20'	15' to 25' (30' for primary emergency and PVTA routes)	25' to 30'
Design speed	15 mph	15 mph	20 mph	25 mph
Tree belt/rain garden width, both sides	7' minimum	7' minimum	7' minimum	NA
Tree filters/street furnishings, etc.	NA	NA	NA	7' minimum
Streetlighting (must be LED)	Intersections and crosswalks	Intersections and crosswalks	Intersections and crosswalks	Intersections and crosswalks



## Table of Street Requirements

Private Residential or Shared Street	Private Alley (residential or mixed use). *does not create legal frontage	*only appropriate for connecting street segments and not through streets	Residential Yield Street	Mixed Use, Commercial and Industrial
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NOTES:

If using pervious pavement, construction should be planned and implemented in consultation with the DPW and an engineer with experience in this field. Pervious asphalt should be based on specifications such as those found in the University of New Hampshire Stormwater Center Design Specifications for Porous Asphalt Pavements and Infiltration Beds.

\*If incorporating LID with no curbs on one side, sidewalks on the curbless side may be eliminated if an ADA-compliant trap rock gravel path is included and there are additional crosswalks to the sidewalk side of the street at least every 200 feet. This street must be designed so that the path is maintained by the homeowners' association. Maintenance is snow clearing and upkeep to original specifications.

A. Location.

- (1) All streets and ways shall be designed so that, in the opinion of the Planning Board, they will provide safe vehicular travel and be located in order to protect important natural features keeping with § **290-33**.

- (2) The proposed streets shall be consistent with the goals of Sustainable Northampton and be urban in character in the more urban areas and be designed for clustering units while providing maximum protection of natural undisturbed areas in the outlying districts. Provision shall be made, to the satisfaction of the Planning Board, for the proper projection of streets, or for access to adjoining property that is not yet subdivided or developed. A right-of-way from the end of all culs-de-sac and dead-end roads to adjoining property must be part of the street layout and must be shown on street acceptance plans and deeds unless there is compelling evidence that the adjoining property will never be developed. If the adjoining property shall never be developed, there shall be a pedestrian and bicycle trail up to the property line, unless wetlands and grade make that impossible.

(3) Streets entering opposite sides of another street shall be laid out either directly opposite each other or with a minimum offset of 150 feet between their center lines. This minimum offset shall also be observed whenever one or more streets entering opposite sides of another street exist, whether located within or outside the boundary of the proposed development.

(4) Streets entering the same side of another street shall be laid out with a minimum offset of 150 feet between their center lines. This minimum offset shall also be observed whenever one or more streets entering the same side of another street exist, whether located within or outside the boundary of the proposed subdivision.

(5) Temporary dead-end or cul-de-sac streets shall conform to the provisions of alignment, width, and grade that would be applicable to such streets if extended.

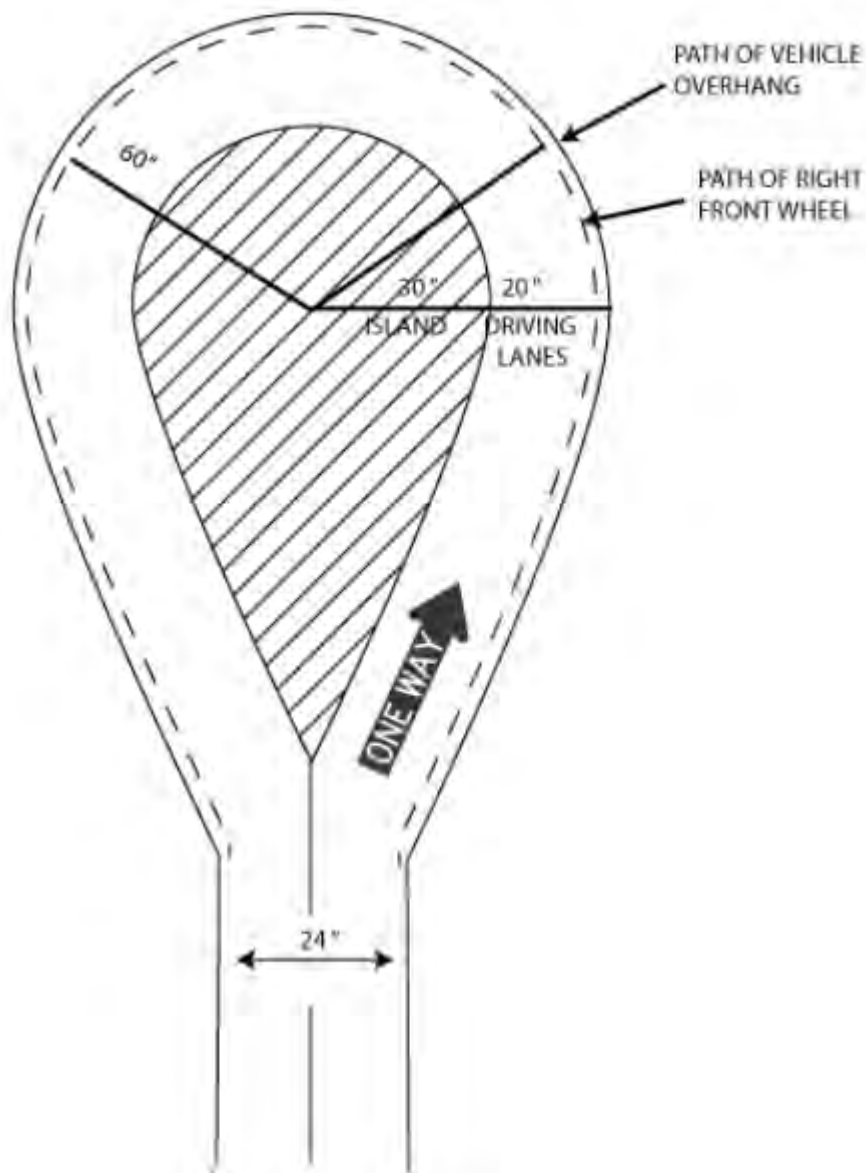
**B. Cul-de-sac or dead-end streets.**

(1) It is the Board's policy not to approve streets that do not connect to existing neighborhoods or do not provide for connections in the future. The applicant must show a scenario of how a street connection can be made. Further, the developer shall make every effort to avoid the creation of dead-end streets and must connect its subdivision to existing dead-end streets whenever reasonably possible. Dead-end streets are more expensive to maintain, limit emergency access, and reduce the sense of connection and equality that comes from interconnecting street grids.

(2) Dead-end streets are only appropriate when the surrounding property will never need a street connection, because of extremely sensitive and permanently protected natural resources, and the project provides a viable alternative pedestrian and bicycle connection to the surrounding property, and the street connection will not aid the transportation network that serves the subdivision, and the dead-end street will not serve more than 20 housing units.

(a) Every street in the proposed subdivision shall be laid out in such a manner that every portion of every street is less than 500 feet, as measured along the center line of construction of the street from the nearest connected existing public street which is not itself a dead-end street. Culs-de-sac or dead-end streets shall be allowed only on residential streets.

(b) All cul-de-sac streets shall use a permanent teardrop-shaped cul-de-sac with a turnaround at the end of the street having a minimum island radius of 30 feet and a property line radius of at least 60 feet. (See below.) In all cases, twenty-foot drive lanes are required to accommodate emergency vehicles. The center of the cul-de-sac shall be on the center line of construction.



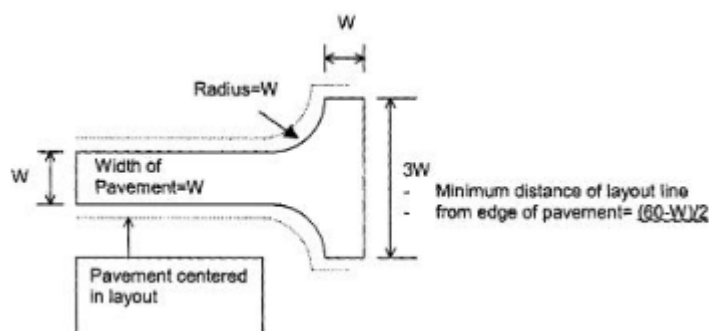
(c) All cul-de-sac streets shall have turnaround islands that are planted with trees and/or other vegetation or left with natural tree growth in lieu of paving the entire area of the cul-de-sac. (See below.) The maintenance of said inner circle shall be the responsibility of the developer, his successors and assigns, or a homeowners' association. The inside radius of the cul-de-sac pavement shall be constructed with granite-edging (Type SB). If pursuing a LID plan, the developer should either eliminate curbs or use interrupted or "invisible" curbs (curbs that are buried along the edge of the street) to allow for a bioretention area on the landscaped island. See § 290-44G. If the cul-de-sac is part of a shared streets development, curbs should also be eliminated. (See below.)



(d) A temporary cul-de-sac or temporary turnaround shall be allowed only where, in the opinion of the Planning Board, it is essential to the reasonable development of the subdivision and where it is a part of a street or way that eventually will be extended into adjoining property. The design of a temporary turnaround shall be satisfactory to the Planning Board and the Department of Public Works and clearly shown on the plan as temporary in nature, and such property lines shall be those which would normally have been required or used without the turnaround. Regardless of the above, no temporary cul-de-sac shall be allowed if the street length exceeds the limit set in these rules and regulations. Unless performance guarantees and legal permissions are provided adequate to ensure that the street shall be connected with a time period approved by the Planning Board. Layout of the turnaround beyond the normal street right-of-way lines shall be in the form of an easement to the City of Northampton covering said premises included in the turnaround. When the street is extended into adjoining property, the developer shall take all steps to remove the easement and replace it with the planned street.

(e) The road going around a teardrop-shaped cul-de-sac turnaround island shall be a one-way road 20 feet wide around the cul-de-sac.

(f) A hammerhead shall be allowed instead of a cul-de-sac. Said hammerhead shall be designed a "T," in accordance with the attached sketch, to allow fire trucks and snow plows to turn around with only one backing-up movement. It shall be at the same width as the street it abuts and shall be at least 75 feet long (3W below). Lots may only gain frontage from one edge of the hammerhead.



### C. Street cross sections.

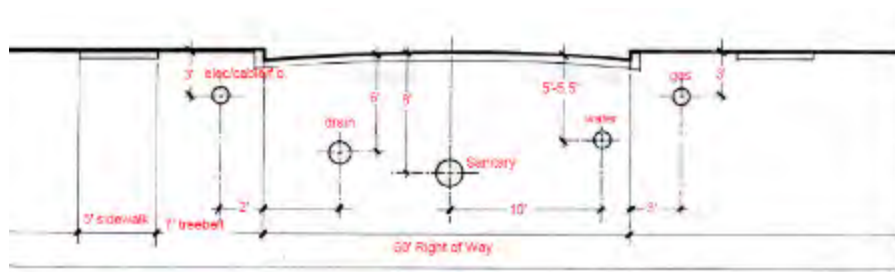
(1) Cross sections shall be in accordance with the standards as shown below.

(2) Only one typical cross section need be shown on the definitive plan if it conforms to the standard shown below. Any variation from the typical standard should be shown on the construction plans at fifty-foot intervals. Shared streets developments will deviate from this standard, as sidewalks will be at grade with the street marked by texture and color changes within the road. Removable bollards may also be used to demarcate shared space areas.

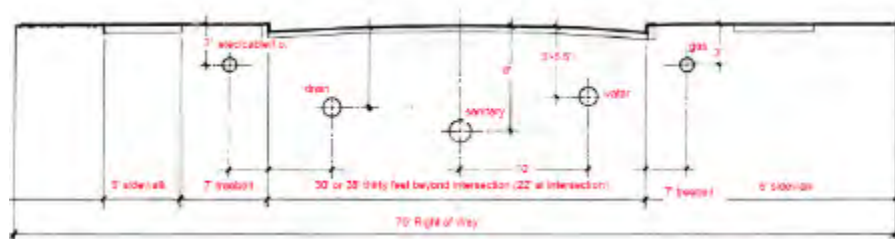
(3) If pursuing a LID plan, especially as part of a shared streets approach, all electric, telephone, cable TV, fiber optic, and other conduits shall be either installed under the edge of the paved section of the right-of-way or a utility easement shall be extended past the right-of-way in order to allow for the use of roadside swales for stormwater management.

#### (4) Diagrams.

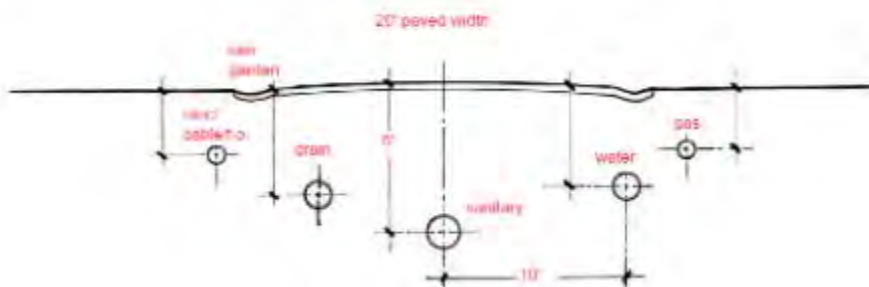
(a) Residential yield street section.



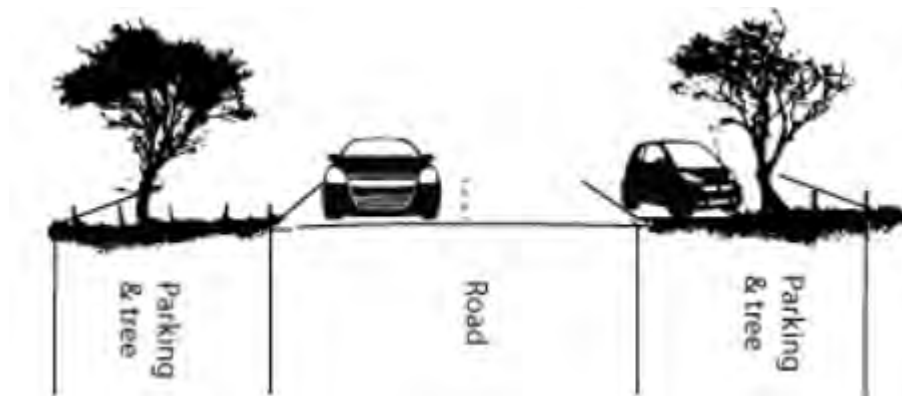
(b) Mixed use street section.



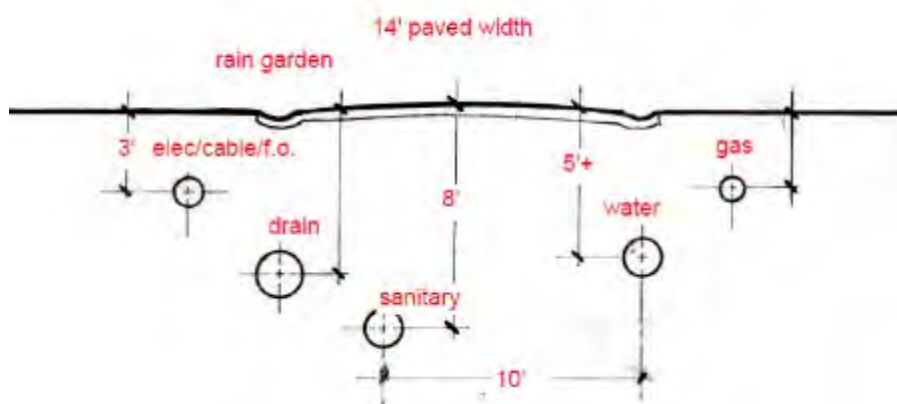
(c) Shared street section.







(d) Green alley section.



#### D. Street design standards.

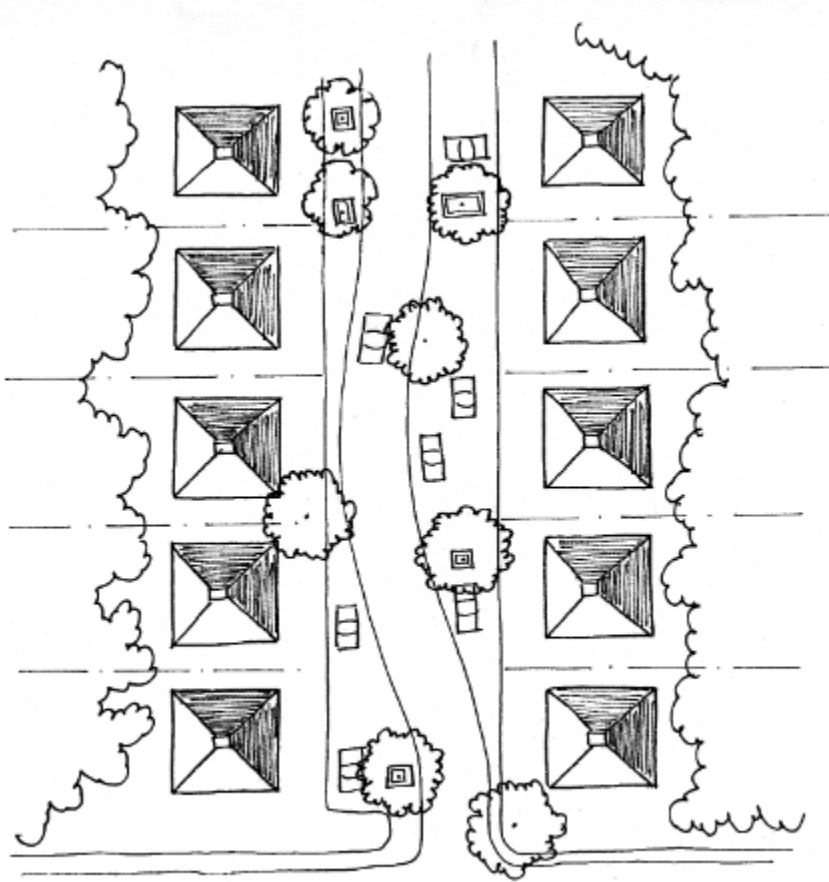
- (1) The center line of the roadway shall coincide with the center line of the right-of-way, unless otherwise approved by the Planning Board.
- (2) In accordance with Chapter 350, Zoning, on-street parking can potentially be allocated to a commercial project that doesn't require nighttime parking by right or by special permit, for zoning parking count purposes, prior to a street being dedicated for public use.

E. Traffic calming and pedestrian and bicycle access. Consistent with the above standards, the design shall make every effort to reasonably calm the traffic within the subdivision and on surrounding streets to ensure pedestrian- and bicycle-friendly design and to prevent a decrease in traffic safety as a result of the additional traffic the project will generate. Bicycle and pedestrian pathways are encouraged within large developments and should be linked to adjacent properties, pathways, sidewalks, and transit stops wherever feasible. Traffic calming may utilize methods detailed in ITE's Traditional Neighborhood Development or Traffic Calming: State of the Practice, and "complete streets" principles from the National Complete Streets Coalition, but must utilize methods that will not make snow plowing or road maintenance especially burdensome for the City.

F. Shared streets should be constructed with a traffic-calming goal of reducing all vehicular speeds to 15 miles per hour.

(1) Shared streets should utilize chicanes that cue motorists to reduce speeds. This can be accomplished by utilizing different pavement textures separated by flush granite. Widened areas should be present every 130 feet to allow cars to pass each other and for parking.

(2) Entryways to shared streets developments and intersections of shared streets should be narrowed to one travel lane with excess paved space for at-grade sidewalks.



Birds-eye view of a shared street with chicanes, removable bollards (to be taken out during winter months) different paving material for the travel lane versus the pedestrian area.

#### §290-35 Sidewalk standards and school bus stops

A. Sidewalks, where required in accordance with the table in § 290-29, may require a design with some utilities under the sidewalks to accommodate layout width. Homeowners' association covenants shall include the requirement that all sidewalks (for public use built within the right-of way or throughout the developed area) shall be cleared of snow by the association. Under an alternative pedestrian circulation layout, sidewalks may be built in common areas rather than

the right-of-way, but only if approved by the Planning Board and if there is a guarantee that sidewalks will be cleared of snow in the winter. In a shared streets development, streets should have paved pedestrian areas on both sides, though the width of these areas may vary between three feet and 12 feet. In some cases, when approved by the Planning Board, shared streets developers may include a paved pedestrian area on only one side of the street.

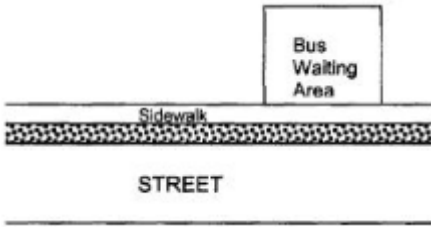
B. Sidewalks shall be constructed as indicated in the table in § 290-29. In shared streets developments, a textured, pervious paving material should be used for pedestrian areas and separated by flush granite curbing. Such paving should contrast in color enough to differentiate the pedestrian area from the travel lane. The material should also be textured enough to signal to visually impaired people the difference between the pedestrian area and the smoother travel lane. The Planning Board may also require bollards to be used to distinguish between pedestrian areas and travel lanes or to protect bioretention areas or around sharp curves.

C. All sidewalks shall conform to the material and construction methods as specified in Section 701 of the Standard Specifications. In addition, all cement concrete sidewalks shall be reinforced with 10/10 six-by-six wire fabric. Different material and construction methods may be required for shared streets pedestrian areas.

D. Where driveway aprons cross cement concrete sidewalks, aprons shall also be constructed with cement concrete to create continuity with sidewalk areas.

E. If pursuing an LID plan and the site permits infiltration, sidewalks may be constructed of permeable paving materials. If using permeable paving materials, whether in an LID and/or shared streets development, the developer must work in consultation with the Department of Public Works and materials must be evaluated at regular intervals as they age. Sidewalks or pedestrian areas may also be constructed to direct stormwater runoff to a swale or other BMP.

F. All subdivisions with 10 or more lots located in an area where school busing is provided or is likely to be provided in the future must provide at least one bus waiting area for school children. This area must be between 30 square feet and 100 square feet, depending on the size of the subdivision (number of students generated). The waiting area shall not include the width necessary to meet the sidewalk standards. It must be constructed of cement concrete; it shall be located at the entrance(s) to the subdivision, abut the outside edge of the sidewalk, and shall contain a bench. If pursuing an LID and/or shared streets plan and the site permits infiltration, the bus waiting area may be constructed of permeable paving materials. All subdivisions consisting of 15 or more lots must incorporate a bus shelter in addition to a bench. Any portion of the waiting area that is outside of the public right-of-way must be owned and maintained by a private homeowners' association.



**§290-37 Adequate access from public way**

A. Where the street system within a subdivision does not connect with or have, in the opinion of the Planning Board, adequate vehicular, pedestrian, and/or bicycle access from a City, county or state public way or private way, the Planning Board shall require, as a condition of approval of a plan, that such adequate access be provided by the subdivider, and/or that the subdivider make physical improvement(s) of access to and within such a way, in accordance with the provisions for these subdivision regulations, either from the boundary of the subdivision to a City, county or state public way or private way, or along such public way for a distance which, in the opinion of the Planning Board, is sufficient to provide adequate access to the subdivision.

B. Where the physical condition or width of a public way from which a subdivision has its access is considered by the Planning Board to be inadequate to either provide for emergency services or carry the traffic which is expected, in the opinion of the Board, to be generated by such subdivision, the Planning Board shall require the subdivider to dedicate a strip of land for the purpose of widening the abutting public way to a width commensurate with that required within the subdivision and to make physical improvements to and within such public way to the same standards required within the subdivision or by these subdivision regulations. Any such dedication of land for the purpose of the way and any such work performed within such public way shall be made only with permission of the governmental agency having jurisdiction over such way, and all costs of any such widening or construction shall be borne by the subdivider.

C. The Planning Board shall disapprove of a subdivision plan where, in the opinion of the Planning Board, the existing surrounding municipal infrastructure (e.g., street width and construction, sanitary sewer, public water, storm sewer, etc.) is insufficient and/or incapable of handling the additional volumes (e.g., traffic, sewage, stormwater, etc.) anticipated, by the Planning Board, to be generated by the project. The Planning Board may accept or require off-site improvements to mitigate any of these impacts.

## Appendix 2.2.3: Various Walk/Bike Policies

### Bike Lane Ordinance designation includes the following streets

Name of Street	Side	Location
Chapel Street		North Beginning at Prince Street westerly to Rocky Hill Road
Chapel Street		South Beginning at Rocky Hill Road easterly to Prince Street
Elm Street		North Beginning at the intersection of Main Street and West Street westerly to the intersection of Woodlawn Avenue
Elm Street		South Beginning at the intersection of Woodlawn Avenue easterly to the intersection of Main Street and West Street
Main Street		North Beginning at the intersection of State Street westerly to the intersection of Main Street and West Street
Main Street		South Beginning at the intersection of Main Street and West Street easterly to the intersection of New South Street
North Elm Street		North Beginning at Elm Street westerly to the intersection of Prospect Avenue
North Elm Street		South Beginning at a point 212 feet east of the intersection of Prospect Street and Locust Street easterly to Elm Street
North Main Street (Florence)	Both	Beginning at Cosmian Avenue northerly to Hayward Road
North Main Street (Florence)	East	Beginning 300 feet southerly from Norwottuck Rail Trail northerly to Haydenville Road
Prince Street	West	Beginning at Norwottuck Rail Trail northerly to Haydenville Road
Prince Street		North Beginning at West Street westerly to Chapel Street
Prospect Street		South Beginning at Chapel Street easterly to West Street
Prospect Street	Both	Beginning at Prospect Avenue easterly to Jackson Street
Prospect Street		North Beginning at the intersection of Finn Street westerly to the intersection of Massasoit Street
Rocky Hill Road		South Beginning at the intersection of Massasoit Street easterly to the intersection of Finn Street
Rocky Hill Road		North Beginning at Chapel Street westerly to Westhampton Road
South Street		South Beginning at Westhampton Road easterly to Chapel Street
South Street	East	From the bridge over the Mill River northerly to the intersection of Old South Street
Westhampton Road	West	Beginning at a point 96 feet south of the intersection of School Street southerly to the bridge over the Mill River
Westhampton Road		North Beginning at Rocky Hill Road westerly to the Westhampton Town line
West Street		South Beginning at the Westhampton Town line easterly to Rocky Hill Road



<b>Name of Street</b>	<b>Side</b>	<b>Location</b>
West Street		North Beginning at the intersection of Belmont Avenue easterly to Prince Street South Beginning at Prince Street westerly to the intersection of Belmont Avenue

#### **Complete Streets Policy Key Provisions:**

- Important quote: "The City's Complete Streets Policy ensures that pedestrian, bicycle and transit facilities are fully integrated into a safe and efficient transportation system."
- Makes the following City policy:

(1) Safely accommodate pedestrians, bicycles and, when appropriate, transit facilities on every surface street.

(2) Minimize and mitigate environmental impacts for all transportation projects.

(3) Encourage alternatives to single-occupancy vehicles.

(4) Improve utilization of intelligent transportation systems for transit priority and potentially other opportunities.

(5) Ensure sidewalks on all new and reconstructed streets, except alleys, and shared streets.

(6) Design new and reconstructed streets to promote green infrastructure (e.g., vegetated swales and rain gardens) when feasible within existing rights-of-way and without conflicting with transportation needs and street trees.

(7) Ensure City-reconstructed streets are consistent with subdivision regulations (e.g., sidewalk and curb materials, dimensions) to the extent existing layouts and resources allow.

(8) Calm traffic and interconnect public streets to preserve pedestrian safety and encourage pedestrian activity in neighborhoods and villages and prohibit gated private streets.

(9) Fully develop the bicycle network so that 75% of households are within 1/2 mile of a multiuse trail and 85% of households are within 1/2 mile of a bicycle lane or trail.

(10) Avoid street widening and additional lanes that will induce new traffic.

(11) Ensure the design and construction of all new, reconstructed, reclaimed streets, including mill-and-overlay projects, incorporate appropriate traffic-calming measures, accessibility improvements, and bicycle and pedestrian facilities. Mill-and-overlay projects shall include sidewalks when in the priority areas below. Design exceptions because of right-of-way constraints or very low current and potential demand shall be made only with Transportation and Parking Commission approval.

- Adds specific design criteria that supplements existing local, state, and federal design guidelines for roadways:

(1) Cement concrete sidewalks on both sides of streets in all business, industrial, mixed-use and urban residential zoning districts when right-of-way width allows. Cement or bituminous concrete sidewalks in other districts within one mile of Florence Center, Northampton Central Business District, all K-12 schools, wherever a sidewalk would reduce the need for public school bus service, along any new street, in dense, walkable neighborhoods, and in areas with clear pedestrian desire lines that will result in significant sidewalk utilization. Sidewalks are not expected in the most rural areas of the City although gravel sidepaths and other trails may still be appropriate.

(2) Intersection improvements should ensure the safety of pedestrians and cyclists, minimize the loss of green space and tree canopy, decrease stormwater runoff, and avoid detrimental impacts on neighborhoods and adjoining streets.

(3) Lane width should be 10 feet wide to 11 feet wide for two-way streets.

(4) Curb radius at intersections shall be as small as possible to slow traffic speed and shorten crosswalk crossing distances, with large trucks (WB-69 trucks) accommodated only when supported by truck traffic counts that demand a wider radius.

(5) To minimize pavement and crossing distances, turn lanes should be provided only when critically needed, and curb extensions should be installed whenever feasible at crosswalks and intersections.

(6) New subdivisions and roads should utilize short block lengths.

(7) Roundabouts, which are the favored intersection treatment except in the center of Florence and downtown, should be used instead of signals whenever possible. Roundabouts and mini-roundabouts should be evaluated during the preliminary engineering analysis for all intersections being considered for significant reconstruction, realignment, signalization, and four-way stops. The Transportation and Parking Commission shall approve any decision to use a signal instead of a roundabout except in downtown and Florence Center.

(8) Audible pedestrian signals at all traffic signals when traffic controllers are upgraded. Where no sidewalks exist, traffic signal equipment should be installed that will allow for future pedestrian signalization.

(9) Prioritize retrofitting streets to add sidewalks for all streets within one mile of all public schools and downtown Northampton and Florence Center when streets are reconstructed, milled and overlaid, or otherwise when sidewalk funding is available.

- If the Complete Streets Policy is approved by MassDOT, the City can submit a Complete Streets Prioritization Plan and request funding for up to five Complete Streets projects. Program details at <http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/LocalAidPrograms/CompleteStreets/FundingProgram.aspx>.

## Chapter 40: Enforcement

### §40-1 Enforcement by criminal complaint

A violation of any ordinance of the City of Northampton, including zoning ordinances, may be enforced by a criminal complaint brought in the District Court. The penalty shall be that fixed by the specific ordinance violated, provided that, if no penalty is attached to a particular ordinance, the penalty shall be as set out in § 1-17 of the Code of Ordinances. Each day a violation continues shall be deemed a separate offense.

### §40-2 Enforcement by civil action

A violation of any ordinance of the City of Northampton, including zoning ordinances, may be enforced by a civil action filed in such court as is appropriate for the relief sought or as designated by statute.

#### §40-3 Noncriminal disposition of ordinance violations

Anyone who violates any ordinance of the City of Northampton, including zoning ordinances, which is subject to a specific penalty, or violates any rule or regulation of any municipal officer, board, or department which is subject to a specific penalty, may be penalized through a noncriminal disposition as authorized by Chapter 40, § 21D, of the Massachusetts General Laws. Each day a violation continues shall be deemed a separate offense.

#### §40-5 List of enforcing officers and penalties for noncriminal disposition

A. Every ordinance of the City of Northampton may be enforced through the noncriminal disposition procedure set out in this chapter. Any police officer of the City of Northampton shall be considered the enforcing officer for any noncriminal disposition of any ordinance violations, whether or not "police officer" is listed below in this section as the enforcing officer for any particular ordinance. The term "police officer" shall include all ranks of the Northampton Police Department. In addition to any police officer, the municipal personnel listed below shall be the enforcing officer for the specific ordinances, rules or regulations as indicated.

B. The penalty for violation of specific City ordinances, rules or regulations shall be as listed below. The penalty for all other ordinances not specifically mentioned in this section shall be \$20 for the first offense, \$50 for the second and subsequent offenses.

Chapter/Section	Enforcing Officer	Fine
Ch. 116, Art. I	Police	
First false alarm within a calendar year		No charge
Second false alarm within a calendar year		\$25
Third false alarm within a calendar year		\$50
Fourth and subsequent false alarms within a calendar year		\$100
Ch. 116, Art. II	Fire Chief or designee	\$50
§§ 128-2, 128-3	Health Agent	\$50
§ 128-5	Animal Control Officer	\$10
§ 128-6	Animal Control Officer	First offense: \$100 Second offense: \$200 Third or subsequent offense: \$300
§ 128-7	Animal Control Officer	\$25
§§ 128-8, 128-9, 128-12	Animal Control Officer	\$50

Chapter/Section	Enforcing Officer	Fine
§ 128-13	Animal Control Officer	\$20
§ 128-14	Animal Control Officer, Agent of Board of Health and Animal Inspector	\$50
§ 128-18B	Animal Control Officer	\$50
§ 128-20	Northampton police officers, agents of the Board of Health, Environmental Police Officers and other enforcement officers of the Office of Fisheries and Wildlife Law Enforcement, and Environmental Police Officers	First offense: \$100 Second offense: \$200 Third or subsequent offense: \$300
§§ 145-13, 145-14, 145-16, 145-17	Building Commissioner, Assistant Building Commissioner	\$50
§§ 145-20, 145-21	Building Commissioner, Assistant Building Commissioner, Plumbing Inspector	\$50
§§ 149-1 through 149-4	Director of Public Works or his/her designee	\$20
§§ 149-5 through 149-7	Director of Public Works or his/her designee	\$10
Ch. 156	Director of Planning and Development or his/her designee	First violation: \$100 Second and subsequent violations: \$200
Ch. 161	Director of Planning and Development or his/her designee	First offense: \$100 Second offense: \$200 Each additional offense: \$300
Ch. 168	Building Commissioner	First offense: \$100 Second offense: \$200 Third and any subsequent offense: \$300
Ch. 183	Fire Chief or designee	\$50
§ 183-11	Fire Chief or designee	Emergency medical alarm: \$50/alarm Fire alarms: 4 to 6: \$100/alarm 7 to 10: \$200/alarm 11 or more: \$300/alarm
Ch. 195	Building Inspector and/or Chair of the Historic District Commission	\$100 per day
§§ 256-9, 259-11, 256-12	Director of Public Works or his/her designee	\$50

Chapter/Section	Enforcing Officer	Fine
Ch. 264, Art. I	Building Commissioner, Assistant Building Commissioner	\$50
§ 272-2	Director of Public Works or his/her designee	\$50
§ 272-3		\$100
Special Conservancy (SC) District		\$250
§ 272-8		Residential: First 5 loads, each: \$10 For each subsequent offense: \$25 Commercial: First offense: \$25 Second offense: \$50 Third offense: \$75 Fourth offense: See § 272-8.
§ 272-15	Health Agent; Solid Waste Coordinator	First offense: \$10 Second offense: \$25
§ 272-17	Board of Health Director, Public Works Director, Northampton Police, and/or their designees	First offense: \$25 (each occurrence) Second offense: \$50 (each occurrence) Third and subsequent offenses: \$100 (each occurrence)
§ 272-18 [Added 5-21-2015]	Health Department or Mayor's designee	First offense: \$50 Second and subsequent offenses: \$100 (each occurrence)
Ch. 278	Director of Department of Public Works and his/her designee	First violation: \$100 Second violation: \$200 Third and subsequent violations: \$300
Ch. 281	Director of Department of Public Works and his/her designee	First violation: \$100 Second violation: \$200 Third and subsequent violations: \$300



Chapter/Section	Enforcing Officer	Fine
§§ 285-4 (excluding Subsection C) to 285-6, 285-9, 285-13, 285-16, 285-19, 285-21, 285-22, 285-29, 285-30	Director of Public Works or his/her designee	\$50
§ 285-4C	Police Department	First offense: \$50 Second offense: \$100 Third offense: \$250
§ 285-17 [Added 4-2-2015]	Department of Public Works Director or his/her designee, Chief of Police or his/her designee, or Parking Enforcement Officers	\$50
§ 312-26	Police Department	First offense: \$50 Second offense within a twelve-month period: \$100 Further offense within a twelve-month period: \$200
§ 312-119	Police officer, parking enforcement officer	\$50/violation
§ 316-17	Police Officer	\$300
§§ 316-18, 316-19	Police Officer	First offense: \$100 Second and subsequent offenses: \$200
Ch. 325, Art. I	Director of Public Works or his/her designee	\$50
Ch. 325, Art. II	Director of Public Works or his/her designee	First offense: \$100 Second and subsequent offenses: \$200
Ch. 337	Director of Planning and Development or his/her designee	First offense: \$100 Second offense: \$200 Each additional offense: \$300
Ch. 350	Building Commissioner, Assistant Building Commissioner	\$100
Regulations of the Conservation Commission	Chairman, Conservation Commission	\$50
Regulations of the Board of Health: Regulations Affecting Smoking in Certain Places and Youth Access to Tobacco	Health Agent, Tobacco Control Coordinator, Sanitary Inspector	

Chapter/Section	Enforcing Officer	Fine
Each violation of smoking in public places (§ 8.A.1)		\$200
Person who smokes in public area (§ 8.A.2)		\$50
Interference with tobacco enforcement officer's performance of duty (§ 8.A.3.f)		\$200
Second violation of tobacco sale (§ 8.B.1)		\$200
Failure to remove tobacco products on display when license is suspended (§ 8.B.4)		\$300
§ VIII-B, 1:		\$200/violation
§ IX-E:		Second violation: \$100 Third violation: \$200 Fourth and subsequent violations: \$300
Any other provision of Sections III, V, VI, or IX		First violation: \$20 Second violation: \$50

## Chapter 233: Parks and Recreation

### §233-1 Operation of Vehicles

No person shall operate a motor vehicle, including, but not limited to a skimobile, minibike, trailbike, automobile, or other powered vehicle, or a bicycle, on any school grounds or in any park, playground, or recreation field operated by the Recreation Department, except on driveways and in parking lots.

## Chapter 285: Streets, Sidewalks, and Public Property

### §285-17 Removal of snow and ice from sidewalks

A. The owner responsible for a building, structure or lot of land bordering on any street, lane, court, square or public place within the City where there is a sidewalk, including any curb ramp/cut, shall, after snow has ceased to fall thereupon or whenever snow shall have collected or deposited upon any such sidewalk, within 24 hours, remove the same or cause the same to be removed from such sidewalk; and also remove or cause to be removed from such sidewalk,

or cover or cause to be covered with sand or some other suitable substance, within 24 hours after it has formed or appeared, any ice with which the same may be encumbered, in such a way as to render such sidewalk safe and convenient for travel, to the full width. For property located in the Central Business District or in areas of Florence zoned General Business as delineated on the Northampton Zoning Map, the above requirements must be met within 24 hours or by 9:00 a.m. on the next business day, whichever is sooner. If a person is found to be violating the provisions of this section, it shall be the duty of the Chief of Police, or his/her designee, the Director of Public Works, or his/her designee, or Parking Enforcement Officers, to assess a fine to any such person in accordance with the fine schedule set forth in Chapter 40, Enforcement, § 40-5. Each twenty-four-hour period a violation of Subsection A or B exists shall be considered to constitute a separate offense.

B. No person shall place, deposit, or move ice or snow onto the paved surface of a street, or onto a gravel shoulder area, if any.

C. Upon neglect of or violation of the duties imposed by the provisions of Subsections A and B of § 285-17, such duties may be performed by the Director of Public Works or his/her designee at the expense of the person(s) or entities liable to perform those duties. Assessment of costs under this subsection shall not preclude any party from being fined under § 40-5.

#### §285-8 Placing items liable to damage tires on streets prohibited

No person shall put or place, or cause to be put or placed, in or on any street, lane, alley or other public place in the City any ashes, glass, crockery, scrap iron, nails, tacks or any other articles which would be liable to injure or damage the tires or wheels of bicycles or automobiles or any other vehicles which have wheels with rubber or pneumatic tires.

#### §285-12 Certain activities on streets and sidewalks prohibited

A. No person shall ride, drive, propel or use a sidewalk surfboard, skateboard, roller skates, or in-line skates on the following public areas, public ways and sidewalks adjacent to the following streets:

(1) Route 5 between Allen Place and Pearl Street and Route 9 between Pomeroy Terrace and State Street.

(2) Downtown Business District.

<b>Name of Street</b>	<b>Location</b>
Armory Street	Entire length
Center Street	Entire length
Crafts Avenue	Entire length
Gothic Street	From Main Street to Allen Place

<b>Name of Street</b>	<b>Location</b>
Hampton Avenue	Entire length
Hawley Street	From Bridge Street to Butler Place
Market Street	From Bridge Street to Union Street
Masonic Street	Entire length
Old South Street	From Main Street to Conz Street
Pearl Street	Entire length
State Street	From Bedford Terrace to Main Street
Strong Avenue	Entire length

(3) Downtown municipal parking areas.

(4) Pulaski Park.

(5) Florence: Main Street from Maple to Chestnut Street.

(6) All Northampton public school property.

#### **B. Provisions for bicycles.**

(1) Bicycles shall be allowed to be driven on all streets and on all sidewalks outside the Downtown Business District and the Florence Business District.

(2) Bicycles shall not be allowed to be driven on the sidewalks in the Downtown District and Florence Business District as defined below:

(a) Downtown Business District:

<b>Name of Street</b>	<b>Location</b>
Armory Street	Entire length
Center Street	Entire length
Crafts Avenue	Entire length
Gothic Street	From Main Street to Allen Place
Hampton Avenue	Entire length
Hawley Street	From Bridge Street to Butler Place
Market Street	From Bridge Street to Union Street
Masonic Street	Entire length
Old South Street	From Main Street to Conz Street
Pearl Street	Entire length
Route 5	Between Allen Place and Pearl Street
Route 9	Between Pomeroy Terrace and State Street
State Street	From Bedford Terrace to Main Street
Strong Avenue	Entire length

(b) Florence Business District:

<b>Name of Street</b>	<b>Location</b>
Main Street	From Maple to Chestnut Street

(3) Bicycles shall not be allowed to be driven in Pulaski Park.

(4) Walking bicycles shall be allowed in all areas where they are not allowed to be driven.

C. Recreational activities; throwing objects; yielding right-of-way; cease and desist.

(1) No person shall engage in any recreation or activity upon any City sidewalk(s) and/or street(s) in a manner that endangers the safety and rightful passage of pedestrian traffic.

(2) The throwing or launching of any projectile, including but not limited to items such as stones and snowballs, upon or across any public street or sidewalk is prohibited when such activity endangers the public safety.

(3) All persons riding nonmotorized wheeled conveyances such as bicycles, roller skates, in-line skates (roller blades) and skateboards or any other human propelled vehicle as allowed by this section must yield the right-of-way to pedestrians at all times.

(4) Any individual(s) refusing to cease such activity as listed herein after being requested to do so by a police officer will be deemed to be in violation of this section.

D. Exemptions. The following motorized and self-propelled vehicles shall be exempt from the provisions of this section:

(1) Bicycles used by police officers exempt from all the provisions of this chapter.

(2) Wheelchairs, walking aids, motorized or self-propelled vehicles, which are used to accommodate persons with disabilities.

(3) Children's carriages or personal shopping baskets or carts; delivery carts.

(4) Children under the age of 10 years with adult supervision riding wheeled toys, bicycles with training wheels and tricycles.

(5) Vehicles used for sidewalk or lawn maintenance (e.g., snowblowers).

§285-18 Sweeping of sidewalks abutting business premises

The owner of premises in the City, occupied wholly or in part by a business establishment, shall cause the public sidewalk abutting said premises to be swept at the opening of each business day and shall cause the sweepings to be picked up. No such sweepings shall be swept or deposited onto the street, roadway or gutter.

§285-24 Gratings in streets

No person shall place or maintain a grating in a street, the space between the bars of which is more than two inches in width, nor shall any person extend any such grating more than 18 inches from a building into a street.



#### §285-29 Obstructions to sidewalks

No person shall allow an obstruction to a sidewalk, or to the edge of road pavement or shoulder where a sidewalk does not exist, including any obstruction in the form of a tree, bush or other vegetation which protrudes over said sidewalk or edge of a road pavement or shoulder. Where the Department of Public Works deems that an obstruction to a sidewalk or to the edge of a road pavement or shoulder exists, it shall give notice by registered mail to the owner of the property causing the obstruction, to remove or prune said obstruction within 14 days so as not to block, obstruct or overhang the sidewalk or edge of the road pavement or shoulder. If the property owner fails to remove or prune the obstruction within said 14 days, the Department of Public Works or, in the case of trees, bushes or shrubs, the Tree Warden shall remove or prune the obstruction at the owner's expense.

#### §285-51 Complete Streets Policy

A. The City's Complete Streets Policy ensures that pedestrian, bicycle and transit facilities are fully integrated into a safe and efficient transportation system. Specifically, it is City policy to:

- (1) Safely accommodate pedestrians, bicycles and, when appropriate, transit facilities on every surface street.
- (2) Minimize and mitigate environmental impacts for all transportation projects.
- (3) Encourage alternatives to single-occupancy vehicles.
- (4) Improve utilization of intelligent transportation systems for transit priority and potentially other opportunities.
- (5) Ensure sidewalks on all new and reconstructed streets, except alleys, and shared streets.
- (6) Design new and reconstructed streets to promote green infrastructure (e.g., vegetated swales and rain gardens) when feasible within existing rights-of-way and without conflicting with transportation needs and street trees.
- (7) Ensure City-reconstructed streets are consistent with subdivision regulations (e.g., sidewalk and curb materials, dimensions) to the extent existing layouts and resources allow.
- (8) Calm traffic and interconnect public streets to preserve pedestrian safety and encourage pedestrian activity in neighborhoods and villages and prohibit gated private streets.
- (9) Fully develop the bicycle network so that 75% of households are within 1/2 mile of a multiuse trail and 85% of households are within 1/2 mile of a bicycle lane or trail.

(10) Avoid street widening and additional lanes that will induce new traffic.

(11) Ensure the design and construction of all new, reconstructed, reclaimed streets, including mill-and-overlay projects, incorporate appropriate traffic-calming measures, accessibility improvements, and bicycle and pedestrian facilities. Mill-and-overlay projects shall include sidewalks when in the priority areas below. Design exceptions because of right-of-way constraints or very low current and potential demand shall be made only with Transportation and Parking Commission approval.

B. Specific design criteria that should typically accompany complete streets in Northampton include the following. These should be added when those streets are reconstructed:

(1) Cement concrete sidewalks on both sides of streets in all business, industrial, mixed-use and urban residential zoning districts when right-of-way width allows. Cement or bituminous concrete sidewalks in other districts within one mile of Florence Center, Northampton Central Business District, all K-12 schools, wherever a sidewalk would reduce the need for public school bus service, along any new street, in dense, walkable neighborhoods, and in areas with clear pedestrian desire lines that will result in significant sidewalk utilization. Sidewalks are not expected in the most rural areas of the City although gravel sidepaths and other trails may still be appropriate.

(2) Intersection improvements should ensure the safety of pedestrians and cyclists, minimize the loss of green space and tree canopy, decrease stormwater runoff, and avoid detrimental impacts on neighborhoods and adjoining streets.

(3) Lane width should be 10 feet wide to 11 feet wide for two-way streets.

(4) Curb radius at intersections shall be as small as possible to slow traffic speed and shorten crosswalk crossing distances, with large trucks (WB-69 trucks) accommodated only when supported by truck traffic counts that demand a wider radius.

(5) To minimize pavement and crossing distances, turn lanes should be provided only when critically needed, and curb extensions should be installed whenever feasible at crosswalks and intersections.

(6) New subdivisions and roads should utilize short block lengths.

(7) Roundabouts, which are the favored intersection treatment except in the center of Florence and downtown, should be used instead of signals whenever possible. Roundabouts and mini-roundabouts should be evaluated during the preliminary engineering analysis for all intersections being considered for significant reconstruction, realignment, signalization, and four-way stops. The Transportation and Parking Commission shall approve any decision to use a signal instead of a roundabout except in downtown and Florence Center.

(8) Audible pedestrian signals at all traffic signals when traffic controllers are upgraded. Where no sidewalks exist, traffic signal equipment should be installed that will allow for future pedestrian signalization.

(9) Prioritize retrofitting streets to add sidewalks for all streets within one mile of all public schools and downtown Northampton and Florence Center when streets are reconstructed, milled and overlaid, or otherwise when sidewalk funding is available.

## Chapter 312: Vehicles and Traffic

### §312-61 Clinging to moving vehicles

It shall be unlawful for any person traveling upon a bicycle, motorcycle, coaster, sled, roller skates, or any toy vehicle to cling to, or attach himself or his vehicle to any moving vehicle or street car upon any roadway.

### §312-78 Bikeway

A. No motorized vehicles or horses will be allowed on the bikeway with the exception of emergency and/or maintenance vehicles belonging to the Massachusetts Electric Company and the City's Public Works, Police and Fire Departments.

B. No trespassing onto private property from the bikeway facility is permitted.

C. The disposal of trash or litter is prohibited.

D. No open fires are permitted on the bikeway.

E. The bikeway will be closed to public use between dusk and dawn. Anyone on the bikeway between dusk and dawn will be required to leave.

F. All users of the bikeway are required to:

(1) Stop at all street crossings; and

(2) Yield the right-of-way to vehicles in the road.

G. All traffic along the facility will keep to the right at all times.

### §312-80 Bike lanes

A. There shall be established in the City of Northampton on certain public ways bike lanes for the preferential but not necessarily exclusive travel of nonmotorized bicycle traffic.

B. A bike lane is so designated by means of painted lines, pavement coloring or other appropriate markings.

C. No vehicle shall park within a designated bike lane in a manner which would obstruct bicyclist passage. Such violation shall be enforced under § 312-99B(1), Group A.

D. A motor vehicle may enter or cross a designated bike lane only after using due caution and care in such movement.

E. The City Council shall designate bike lanes within the City upon recommendation of the Transportation and Parking Commission and concurrence from the Department of Public Works.

F. The following areas are hereby designated as bike lanes:

<b>Name of Street</b>	<b>Side</b>	<b>Location</b>
Chapel Street		North Beginning at Prince Street westerly to Rocky Hill Road
Chapel Street		South Beginning at Rocky Hill Road easterly to Prince Street
Elm Street		North Beginning at the intersection of Main Street and West Street westerly to the intersection of Woodlawn Avenue
Elm Street		South Beginning at the intersection of Woodlawn Avenue easterly to the intersection of Main Street and West Street
Main Street		North Beginning at the intersection of State Street westerly to the intersection of Main Street and West Street
Main Street		South Beginning at the intersection of Main Street and West Street easterly to the intersection of New South Street
North Elm Street		North Beginning at Elm Street westerly to the intersection of Prospect Avenue
North Elm Street		South Beginning at a point 212 feet east of the intersection of Prospect Street and Locust Street easterly to Elm Street
North Main Street (Florence)	Both	Beginning at Cosmian Avenue northerly to Hayward Road
North Main Street (Florence)	East	Beginning 300 feet southerly from Norwottuck Rail Trail northerly to Haydenville Road
Prince Street	West	Beginning at Norwottuck Rail Trail northerly to Haydenville Road
Prince Street		North Beginning at West Street westerly to Chapel Street
Prospect Street		South Beginning at Chapel Street easterly to West Street
Prospect Street	Both	Beginning at Prospect Avenue easterly to Jackson Street
Prospect Street		North Beginning at the intersection of Finn Street westerly to the intersection of Massasoit Street
Rocky Hill Road		South Beginning at the intersection of Massasoit Street easterly to the intersection of Finn Street
Rocky Hill Road		North Beginning at Chapel Street westerly to Westhampton Road
South Street		South Beginning at Westhampton Road easterly to Chapel Street
South Street	East	From the bridge over the Mill River northerly to the intersection of Old South Street
Westhampton Road	West	Beginning at a point 96 feet south of the intersection of School Street southerly to the bridge over the Mill River
Westhampton Road		North Beginning at Rocky Hill Road westerly to the Westhampton Town line

<b>Name of Street</b>	<b>Side</b>	<b>Location</b>
West Street	South	Beginning at the Westhampton Town line easterly to Rocky Hill Road
West Street	North	Beginning at the intersection of Belmont Avenue easterly to Prince Street
	South	Beginning at Prince Street westerly to the intersection of Belmont Avenue



## Appendix 2.3: Walk/Bike Programs

### Northampton Traveling to School Safety Brochure

As we welcome students, teachers, staff and families back to school, we would like to remind you to keep the following safety tips in mind regardless of how you travel to school.

Tips for students who walk to school:

- Plan a safe direct route and practice it together before school starts
- Stay alert and look around continuously to stay aware of what is around you
- Cross major intersections where the Crossing Guards are or where there is a crossing signal
- Always listen to and obey all crossing guard directions
- Always remember to stop a safe distance away from the curb, then look and listen for traffic.
- Obey all traffic signs and signals
- Make eye contact with drivers before crossing - be sure the drivers see you.
- When walking in low light conditions including rain, make sure you can be seen. Wear reflective, bright or light colored clothing.
- Always walk on the sidewalk or where there are no sidewalks, walk on the left-hand side of the street
- Walk carefully. No running or horseplay while crossing the street
- Do not text while walking or crossing a cross walk
- Walk with other students – create a buddy system. If possible, parents should walk with younger children.
- Students should not take shortcuts or cut through alleys or across vacant lots
- Parents and neighbors should turn on porch lights and other outdoor lights before dawn and at dusk.
- Students should be on time, everyday.

Tips for motorists:

- Never pass a school bus that is stopped to load or unload children. It is illegal in all 50 states. Also, never pass a school bus on the right -- it is illegal and dangerous.
- If you are traveling in the same direction as a stopped school bus, you must stop as well.
- Yellow flashing lights indicate that the bus is preparing to stop to pickup or drop off children. If you are driving, slow down and prepare to stop. Red flashing lights and an extended stop arm indicate that the bus is stopped, and that children are getting on or off. This, of course, means that you have to stop as well.
- When waiting with your own child, teach them to wait until the stop arm is fully extended and the bus door opens before moving toward the bus.
- The area ten feet around a school bus is at the highest risk for child being hit, so stop your car further than that to allow space for children to enter or exit. Most states have distance requirements, and they may be much further away than you may think.
- When backing out of a driveway or leaving a garage, watch out for children walking or bicycling to school. Better yet, walk around your car or out to the sidewalk to check for any children

walking in your path before you get in.

- Be aware that roads that pass near the school may have slower speed limits during arrival and dismissal times than during non-school hours and that those limits are often more strictly enforced.
- Drive slowly and watch for children walking in the street, especially if there are no sidewalks. Also be aware of children playing or waiting around bus stops.
- Stop for Pedestrians in all crosswalks.
- Be alert and aware on the road. While children are typically taught about looking both ways, they could dart into the street without looking if they are late or distracted. Remember that children are unpredictable in their actions.

Tips for bicyclists:

- Practice biking to school on the safest route with an adult prior to the start of the school year
- Always wear a properly fitted helmet
- Stay alert and look around continuously to stay aware of what is around you
- Obey the rules of the road; the rules are the same for all vehicles, including bicycles
- Stay on the right-hand side of the road and ride in the same direction as traffic
- Know and use appropriate hand signals
- Wear light colored or bright colored clothing so you can be seen
- Do not allow someone to ride as a passenger on your bike
- Make sure your bike is in good working condition - check brakes, tires, bike chain, seat adjustment and reflectors
- If walking through parked vehicles, stop and look carefully before stepping out from between vehicles. Don't run between parked cars and buses.
- Always walk your bicycle across a crosswalk when one is available